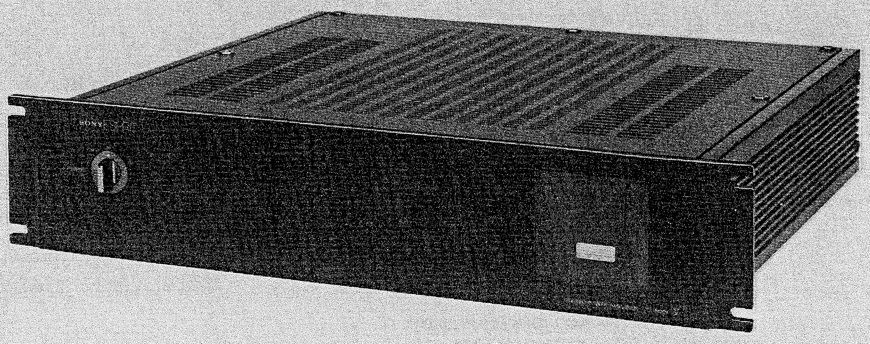
TA-N901

AEP Model
UK Model



STEREO POWER AMPLIFIER

SPECIFICATIONS

Continuous RMS power output	At 20 Hz - 20 kHz 150 + 150 watts (8 ohms) 130 + 130 watts (4 ohms) According to DIN 45500 150 + 150 watts (8 ohms) 130 + 130 watts (4 ohms)
Power bandwidth (IHF)	5 Hz - 80 kHz
Slew rate	150 V/μ sec (8 ohms)
Harmonic distortion (At rated output)	Less than 0.1% (8 ohms) Less than 0.2% (4 ohms)
Intermodulation (IM) distortion (60 Hz : 7 kHz = 4 : 1, at rated output)	Less than 0.1% (8 ohms) Less than 0.2% (4 ohms)
Frequency response	DC - 100 kHz $^{+0}_{-3}$ dB (DIRECT INPUT) 5 Hz - 100 kHz $^{+0}_{-3}$ dB (C COUPLED INPUT)
Signal-to-noise ratio	Greater than 120 dB (short-circuited input, 8 ohms) 110 dB (8 ohms, '78 IHF)

– Continued on page 2 –

SAFETY-RELATED COMPONENT WARNING!!

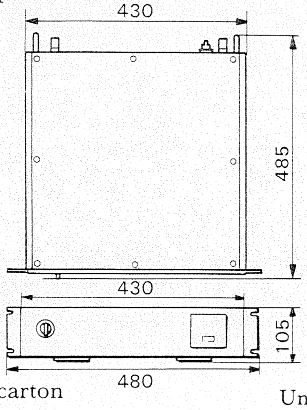
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

SONY®

SERVICE MANUAL

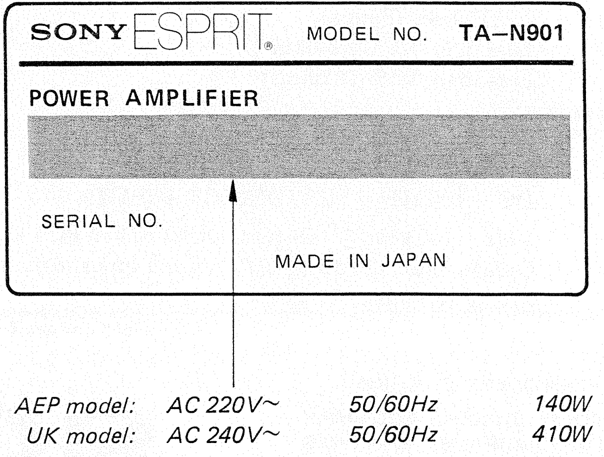
Residual noise	Less than 30μV (8 ohms, A network)
Damping factor	50 (8 ohms, 1 kHz)
Inputs (For rated output)	Sensitivity 1.4 V Impedance 50 k ohms
Outputs	SPEAKER terminals Accept speakers of 4 – 16 ohms with a user-selectable switch
General	
System	Pre-power stage 1st : Bootstrapped double cascode FET differential input, with current-mirror output 2nd : Bootstrapped cascode inverted amp 3rd : Emitter follower SEPP output Power stage No NFB loop, pure-complementary SEPP output in class A operation Power supply Pulse locked power supply
Power requirements	220 V a.c. (AEP model) 240 V a.c. (UK model) 50/60 Hz
Power consumption	140 watts (AEP model) 410 watts (UK model)
Dimensions	Approx. 480 × 105 × 485 mm (w/h/d) ($19\frac{7}{8} \times 4\frac{1}{4} \times 19\frac{1}{8}$ inches) Including projecting parts and controls)
Weight	Approx. 12.5 kg (28 lb 11 oz), net 15.4 kg (33 lb 13 oz), in shipping carton



Unit : mm

MODEL IDENTIFICATION

– Specification Label –



AEP model:	*AC 220V~*	*50/60Hz*	*140W*
UK model:	*AC 240V~*	*50/60Hz*	*410W*

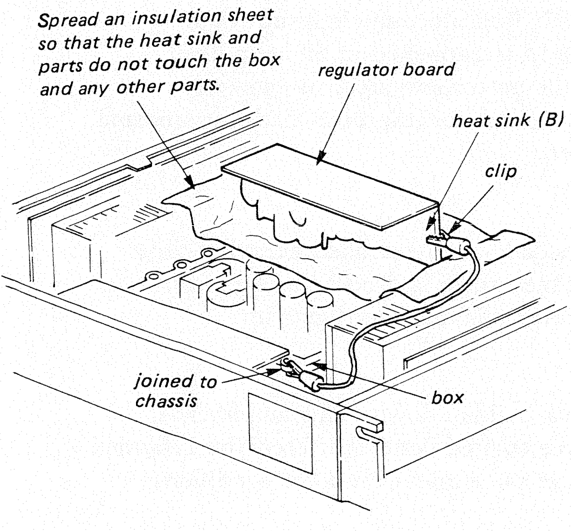
SECTION 1
OUTLINE

1-1. SERVICING NOTE

NOTES ON REPAIR

- This set differs from the conventional power supply circuit which utilizes a power transformer in that it employs a pulse lock power supply. This pulse lock power supply rectifies and smooths the commercial power supply directly, so the DC voltage applied to the power supply section is higher than ever before.
  Please exercise caution during repair.
- The pulse waves contain a large amount of high frequency elements, so in order to avoid unwanted radiation, the pulse power section board is enclosed in an aluminum diecast box.
- The secondary rectification ground is joined to the chassis at the heat sink B mounting screw, so when the regulator board is removed from the box during repair, the secondary rectification ground will come off. When repairing, join this ground to the chassis as shown in the figure below.
- The chemical capacitor (C004) is still charged after AC source rectification, even when the power switch is off, so please be careful. When discharging, be sure to use a 100 – 200Ω resistor. It is dangerous to discharge directly with a lead.

PULSE LOCKED POWER SUPPLY SECTION


Spread an insulation sheet so that the heat sink and parts do not touch the box and any other parts.
regulator board
heat sink (B)
clip
joined to chassis
box

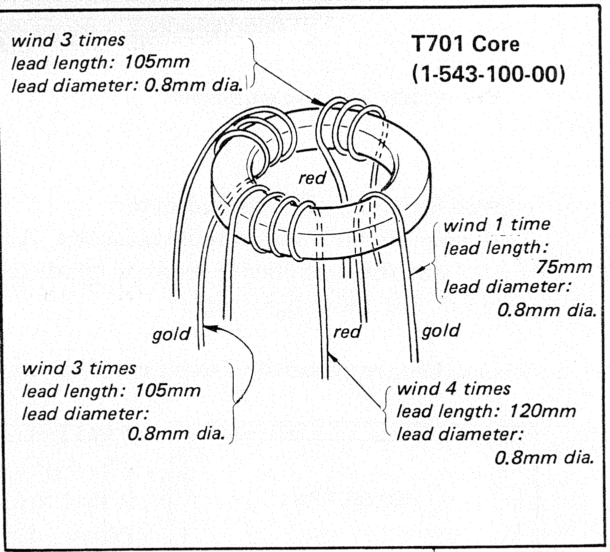
NOTES ON REPLACING TRANSISTORS FOR PULSE LOCKED POWER SUPPLY

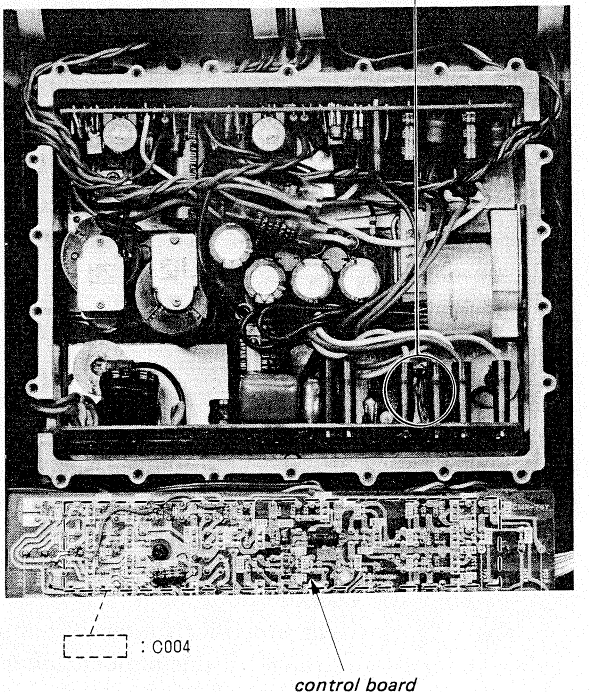
- When replacing the inverter circuit transistors Q703 – 706, please replace all four at the same time.
  (The repair part supplied is a set of four, all with the same response.)

Code	Part No.	Name	Ref.
Q703 – 706	X-4870-214-1	Transistor Set for Service	2SC2625

NOTES ON REPLACEMENT OF PULSE LOCKED POWER SUPPLY TRANSFORMER (T701)

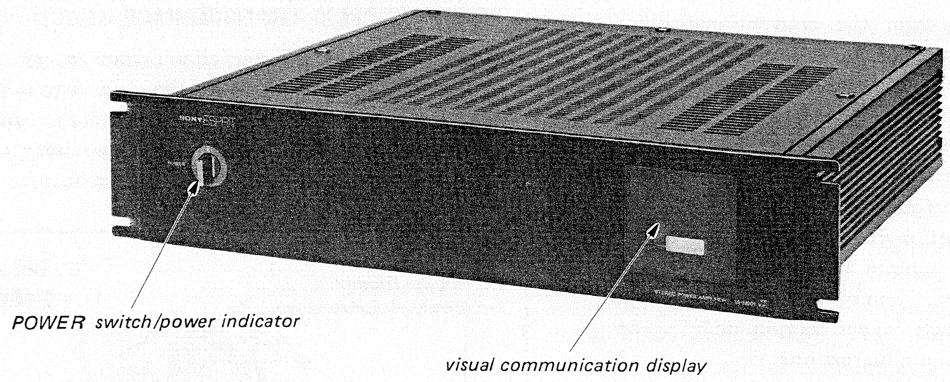
- The leads on inverter circuit transformer T701 are as shown below. Only the core is supplied as the repair part for T701, and the leads are not wound on it. If the necessity arises, refer to the figure below to prepare the transformer.


wind 3 times
lead length: 105mm
lead diameter: 0.8mm dia.
T701 Core
(1-543-100-00)
red
wind 1 time
lead length: 75mm
lead diameter: 0.8mm dia.
gold
red
gold
wind 3 times
lead length: 105mm
lead diameter: 0.8mm dia.
wind 4 times
lead length: 120mm
lead diameter: 0.8mm dia.


: C004
control board

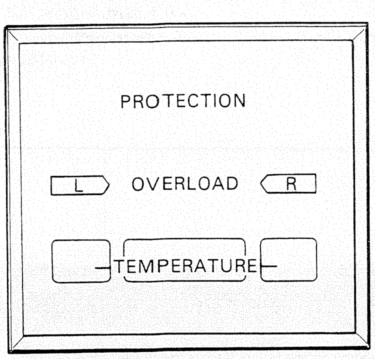
1-2. PARTS IDENTIFICATION

FRONT PANEL


POWER switch/power indicator
visual communication display

POWER Switch/Power Indicator
This amplifier includes a muting circuit. A few seconds after the power switch is turned on, the amplifier is ready to produce high-quality sound. During operation, the indicator lamp lights up.

Visual Communication Display This display has three indicators :



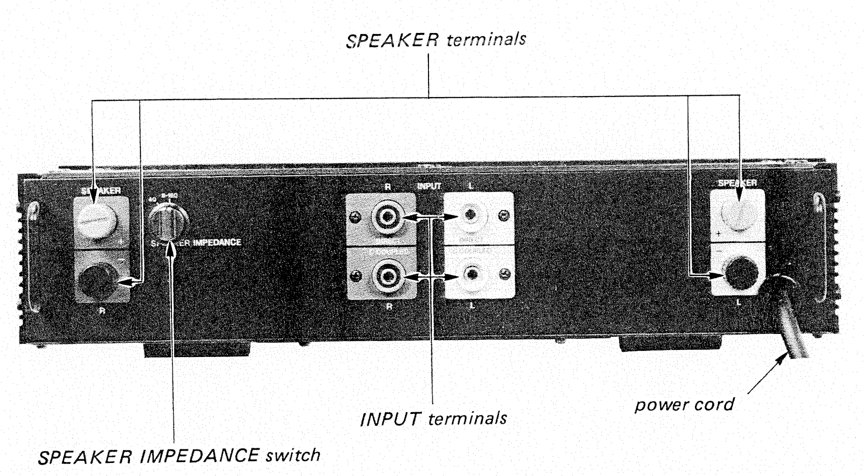
PROTECTION indicator
The word "PROTECTION" lights up when the amplifier is first turned on to indicate that the amplifier is muted. When "PROTECTION" disappears (after a few seconds), the amplifier is ready to operate.
The PROTECTION indicator may light up when something abnormal has happened in the amplifier, showing you that the protection circuit is engaged.
When this happens, check for improper loads, an unusual temperature rise, etc.

OVERLOAD indicator
This indicator lights up when the amplifier is overloaded for an extended period of time. If you continue to drive the amplifier in this status, the tweeter's driver may be blown out. You should turn down the amplifier's volume whenever this indicator lights up.

TEMPERATURE indicator
A good amplifier is designed to keep the internal heat buildup down. This amplifier is, of course, so designed and, in addition, includes three colored lights that keep you informed of internal temperature situation so that you can drive the amplifier in ideal conditions.

Blue (left) : When the amplifier is first turned on, blue indicator lights up to indicate that the amplifier is warming up.
After about 15 minutes of warming up, the green indicator lights up.
Green (center) : The amplifier's internal temperature is in the range in which the amplifier operates best.
Red (right) : The amplifier's internal temperature exceeds the optimum operational temperature range. If this happens after you have overloaded the amplifier severely for an extended period of time, turn down the amplifier to a well-ventilated place or turn the power off for a while. If you disregard this, the protection circuit may be engaged.

REAR PANEL


SPEAKER terminals
SPEAKER
SPEAKER IMPEDANCE
R
INPUT
L
SPEAKER
INPUT terminals
power cord
SPEAKER IMPEDANCE switch

SPEAKER Terminals

Screw-type binding terminals are used to assure positive connections.
Use speaker cords whose conductor diameter is up to 4 mm.

SPEAKER IMPEDANCE Switch

This amplifier has a SPEAKER IMPEDANCE switch which allows the speaker used to be driven in the most efficient and stable manner, whether it is a 4 ohm, or 8 ohm speaker.

●For a 16 ohm speaker, set the switch at the 8 – 16 Ω position.
The rated output power in this position is 75 watts.

INPUT Terminals

The TA-N901 provides two power amplifier inputs—DIRECT INPUT and C COUPLED INPUT.

DIRECT INPUT : This input allows the TA-N901 to perform as a d.c. power amplifier. For normal operation, use this input.
However, if subsonic noise components from the connected preamplifier or program source are present and trigger the TA-N901 protection circuits, reconnect the preamplifier to the C COUPLED INPUT.

C COUPLED INPUT : This input has a subsonic filter (a d.c. decoupling capacitor) which takes effect below 1.5 Hz with a 6 dB per octave slope to prevent the TA-N901 from being affected by an inadvertent d.c. signal flow and subsonic record-warp frequencies.

Power Cord

A white mark is visible on one lead of the power cord.
This will help to operate the TA-N901 and the other components of the system "in phase" by aligning the ac power cord polarities with the ac outlet polarities. In most cases, the marked plug of the TA-N901 power cord should be inserted into the grounded side of the ac outlet.

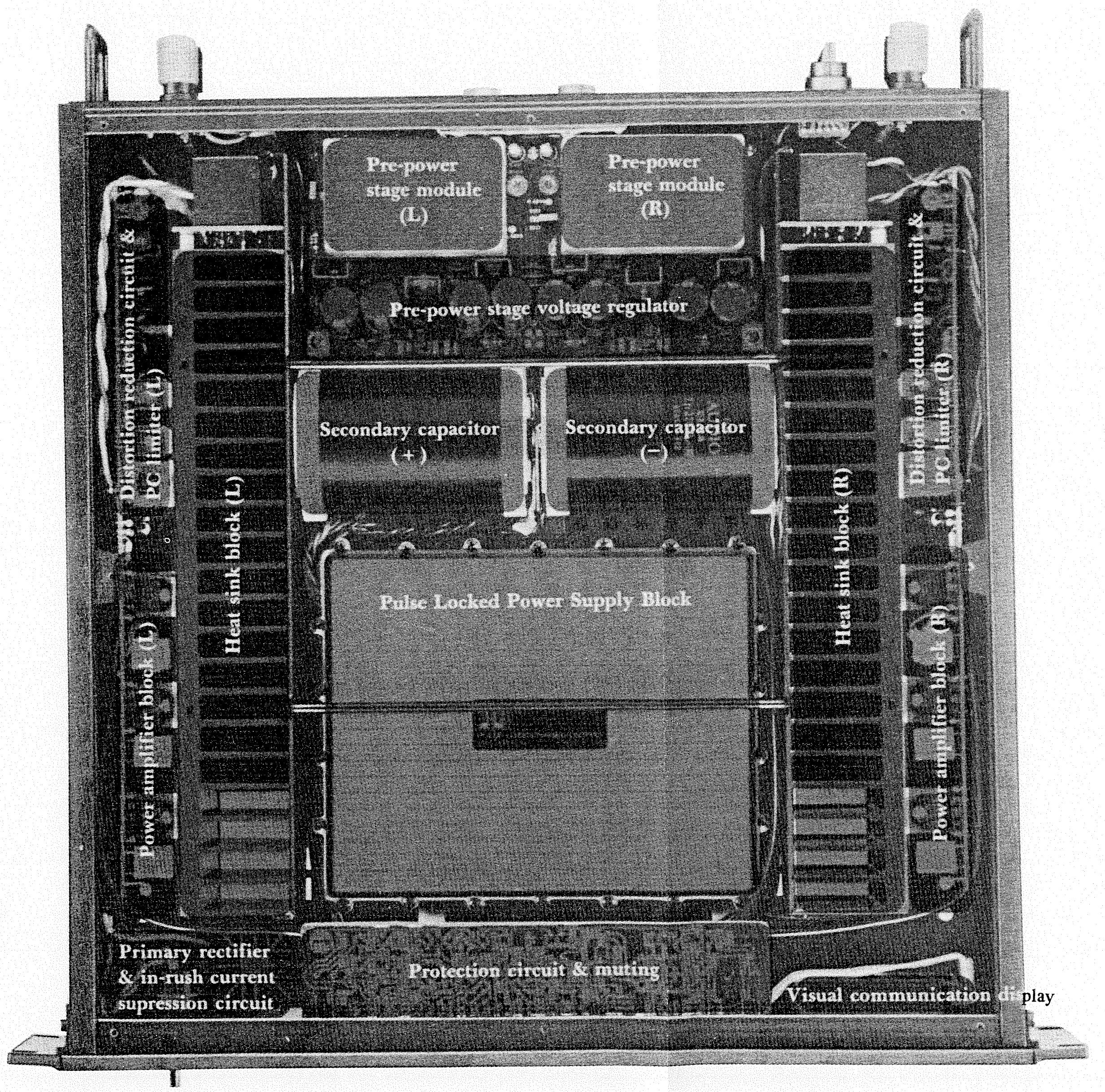
1-3. INTERNAL CONSTRUCTION AND CIRCUIT LAYOUT

Non-magnetic Construction

The TA-N901's cabinet is made of aluminum with a plastic top. The only magnetic materials used are screws and corner braces, which require mechanical strength.
The TA-N901 is among the very few amplifiers on the market constructed in this way.

Efficient Circuit Layout

In stereo amplifier design, electrical and mechanical interference caused by the unit's construction and circuit layout, etc., is a perennial problem. As the photo illustrates, the TA-N901 is designed so that the power supply section and pre-power stages are centered and the L and R channel power stages flanked by the heat sinks are placed at the sides.
Interference between stages is effectively eliminated by this separation.


Pre-power stage module (L)
Pre-power stage module (R)
Pre-power stage voltage regulator
Distortion reduction circuit & PC limiter (L)
Distortion reduction circuit & PC limiter (R)
Secondary capacitor (+)
Secondary capacitor (−)
Heat sink block (L)
Heat sink block (R)
Pulse Locked Power Supply Block
Power amplifier block (L)
Power amplifier block (R)
Primary rectifier & in-rush current supression circuit
Protection circuit & muting
Visual communication display

1-4

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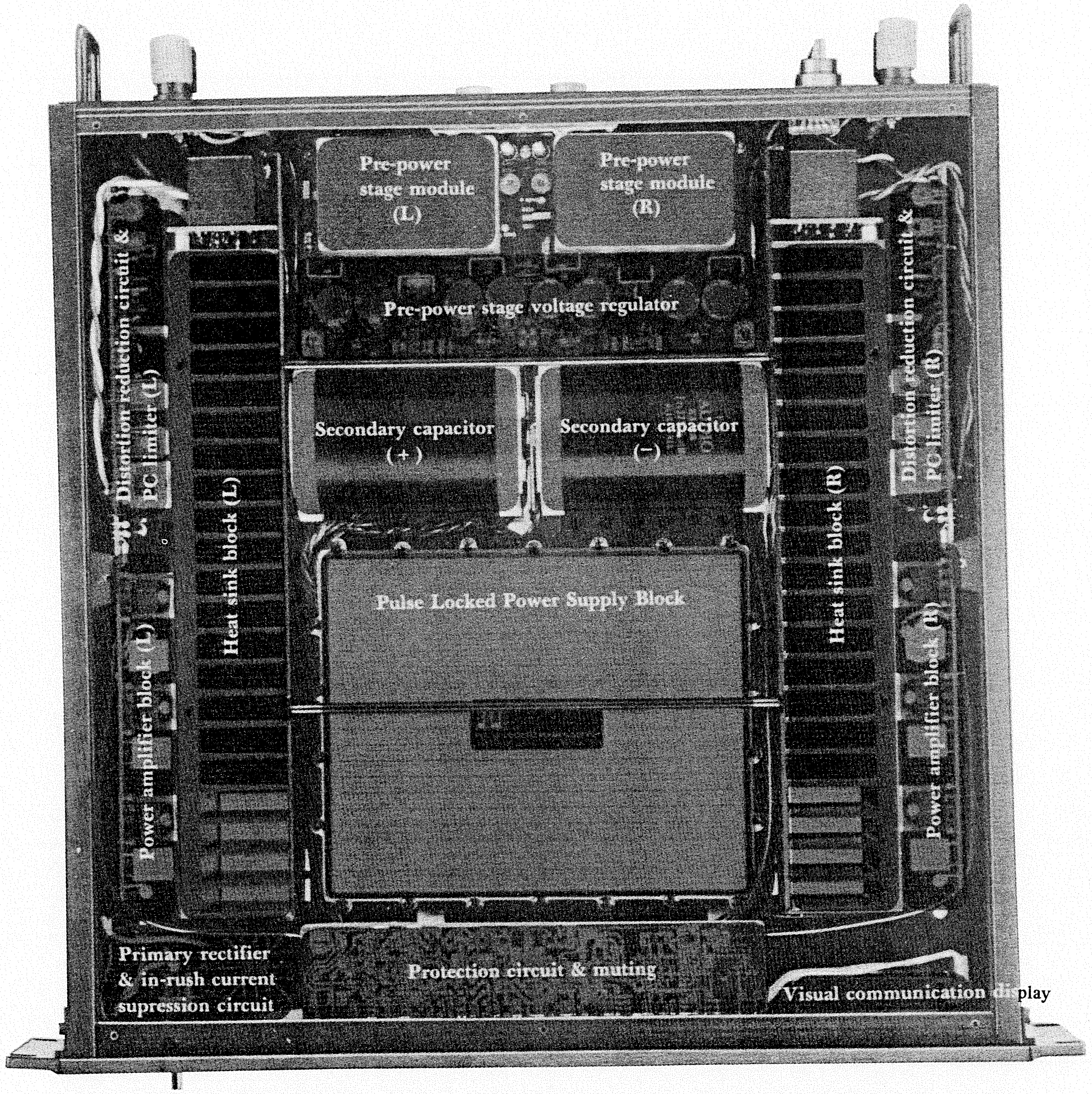

Pre-power stage module (L)
Pre-power stage module (R)
Pre-power stage voltage regulator
Distortion reduction circuit & PC limiter (L)
Distortion reduction circuit & PC limiter (R)
Secondary capacitor (+)
Secondary capacitor (−)
Heat sink block (L)
Heat sink block (R)
Pulse Locked Power Supply Block
Power amplifier block (L)
Power amplifier block (R)
Primary rectifier & in-rush current supression circuit
Protection circuit & muting
Visual communication display

1-4. CIRCUIT DESCRIPTION

PRE-POWER STAGE

The first stage forms a bootstrapped double-cascode FET differential circuit, using a junction FET and bipolar transistor. The stage has a cascode current-mirror load. This arrangement has the advantage that high frequency distortion, caused by the FET's nonlinear feedback capacitance, is kept to a minimum so that the circuit remains stable even when the temperature or a.c. line voltage changes.

A bootstrapped cascode inverted circuit comes next. This circuit features excellent linearity as well as excellent power supply rejection characteristics.

The final stage of the pre-power section is in a complementary emitter-follower SEPP output configuration.

The stages up to this point have a very light load, being isolated from the speaker load and the power stage. This means all problems caused by transient intermodulation distortion or reactive loads are eliminated.

The pre-power stage, with an NFB loop running from its output back to the first stage, has a gain of approximately 27 dB, an ample gain to drive the power stage that follows.

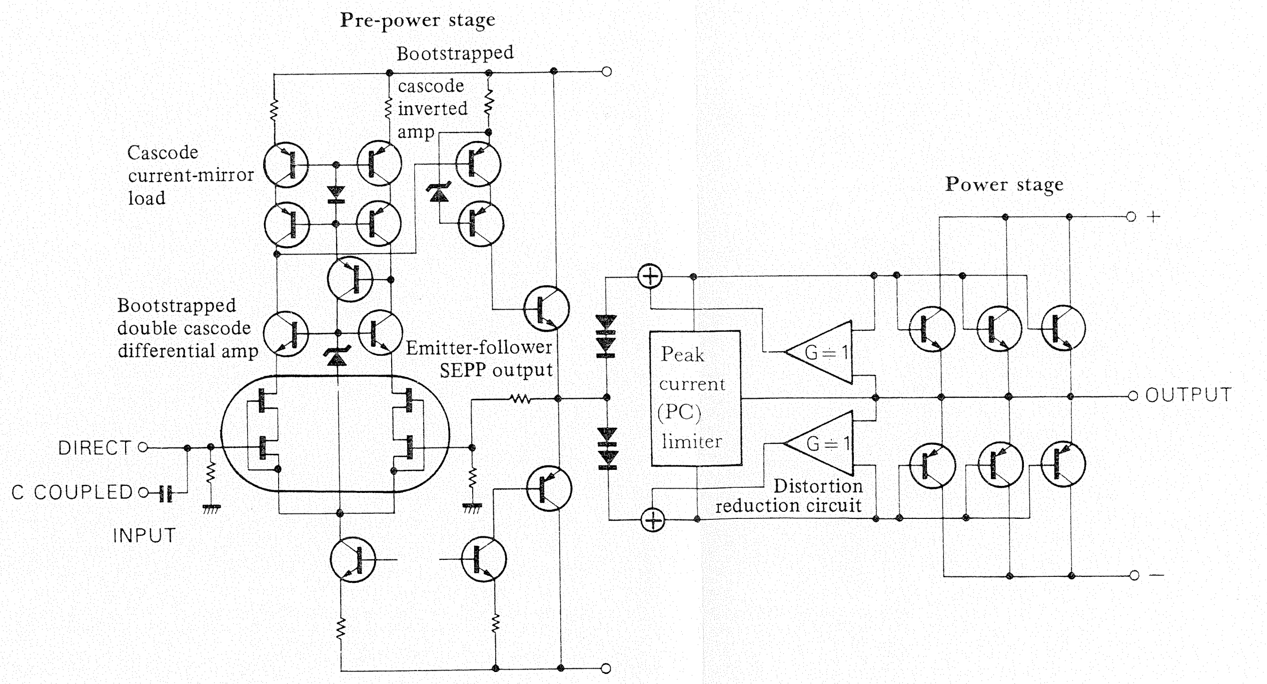
POWER STAGE

The power stage consists of a distortion reduction circuit and a emitter-follower SEPP output stage with three Hi-f_T power transistors each connected in parallel.

The distortion reduction circuit has a circuit configuration in which the bias voltage, a voltage detected between the power output and power transistors' bases and varying with the incoming signal condition, is fed to the pre-power stage to drive the power transistors.

In this way the circuit action compensates the power stage's nonlinear portion and operates the power stage as class A.

As can be seen in the circuit diagram, there is no NFB loop from the power stage to the pre-power stage.


Pre-power stage
Bootstrapped cascode inverted amp
Cascode current-mirror load
Bootstrapped double cascode differential amp
Emitter-follower SEPP output
DIRECT
C COUPLED
INPUT
Power stage
+
Peak current (PC) limiter
G=1
G=1
Distortion reduction circuit
OUTPUT
−

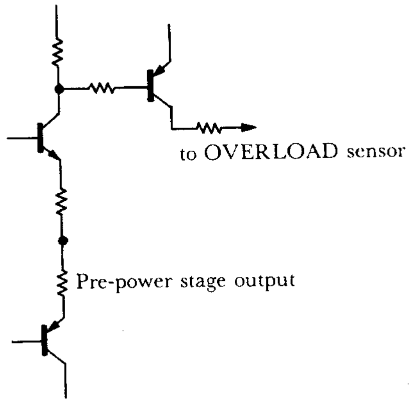
VISUAL COMMUNICATION DISPLAY

PROTECTION indicator

Output relays react fast to break the signal path and protect the amplifier and speakers from damage when the amplifier is first turned on, or is overloaded and heated beyond its optimum operational range.

OVERLOAD indicator

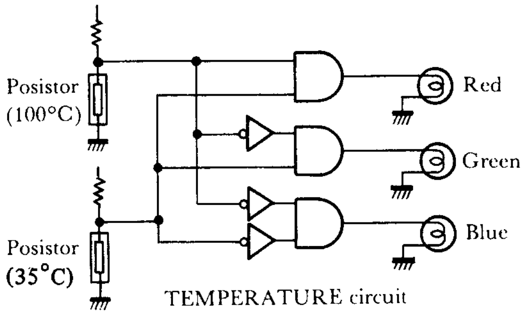
When the power stage clips, the pre-power stage has a heavy load, drawing a large amount of current. Overload sensor detects this and warns you of the amplifier's overloading. This sensing circuit does not act under normal condition so that effect on the tonal quality is disregarded.



OVERLOAD circuit

TEMPERATURE indicator

This amplifier requires a warm-up period before it can be driven at its best because the heat sinks used are large and take time to reach the temperature at which the power transistors operate best.
Green indicator lights up in the 35°C – 100°C internal temperature range.



TEMPERATURE circuit

PRE-POWER STAGE VOLTAGE REGULATOR

The pre-power stage is powered by a series voltage regulator independent of the power stage's power supply. This helps reduce the interaction between the high-level power stage and the low-level pre-power stage.

PROTECTION CIRCUITS

The TA-N901 has built-in protection systems to shut down the amplifier when it is unsafe to operate.
The output stage is protected by a current-limiting sensor against excessive load currents from a shorted output or too low a load impedance. A d.c.-sensing circuit monitors the output and operates a relay that disconnects the speaker output if a significant d.c.voltage appears. This relay also delays the connection of the speakers for a few seconds to prevent any annoying thump when the amplifier is first turned on. Finally, there is a temperature-sensing system at the output stage to protect against an unusual temperature rise.
After a short period, the amplifier returns to operation without any action on the part of the user (assuming that the unsafe condition has been corrected.)

PULSE-LOCKED POWER SUPPLY

The TA-N901 power supply section utilizes advanced pulse techniques to provide a high capacity power source which operates at exceptional efficiency.
Because it converts 50 Hz or 60 Hz power to 20 kHz, the TA-N901 power supply can utilize high-quality ferrite-core power transformer as well as much larger and heavier filter capacitors, permitting the amplifier to faithfully reproduce musical material.

Primary rectifier

This circuit converts the a.c. line input to a high d.c. voltage. The diodes capable of high-speed response with low switching noise are employed for this purpose.

20 kHz power oscillator

This oscillator, utilizing four transistors designed for high-power switching applications, generates high-power pulses with extremely high efficiency.

Converter transformer

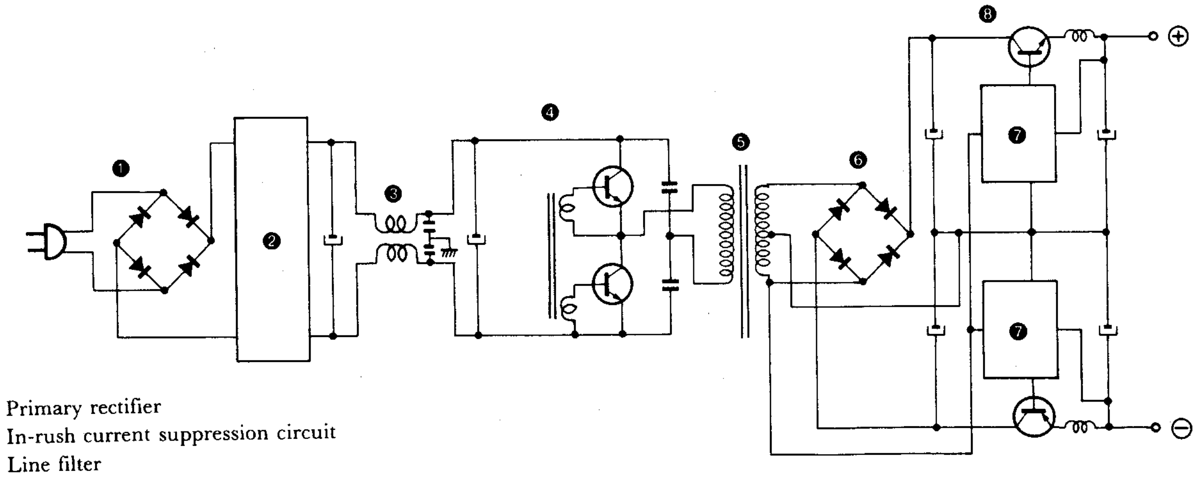
Because the transformer handles a high-frequency signal of 20 kHz, a ferrite core, which has low high-frequency loss, is employed.
Compared to transformers that handle conventional power supplies of 50 Hz or 60 Hz, it can be constructed with fewer windings, with the result that the internal impedance is extremely low.

Secondary rectifier

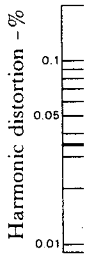
This circuit, which also employs high-speed response diodes, rectifies the 20 kHz output and provides positive and negative d.c. voltages.

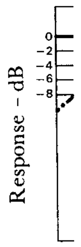
Pulse-width control voltage regulator

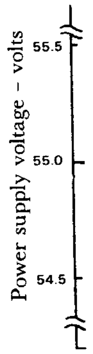
This circuit detects the positive and negative d.c. voltages that are applied to the power stage in the amplifier, controls the pulse width of the 20 kHz output, and maintains the output voltages at a constant level for both potentials. In addition, 22,000μF capacitors are incorporated at the output of this circuit to keep the amplifier stable during program peaks.



❶ Primary rectifier
❷ In-rush current suppression circuit
❸ Line filter
❹ 20 kHz power oscillator
❺ Converter transformer
❻ Secondary rectifier
❼ Pulse-width control circuit
❽ Pulse-width control voltage regulator







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20 kHz power oscillator

This oscillator, utilizing four transistors designed for high-power switching applications, generates high-power pulses with extremely high efficiency.

Converter transformer

Because the transformer handles a high-frequency signal of 20 kHz, a ferrite core, which has low high-frequency loss, is employed.
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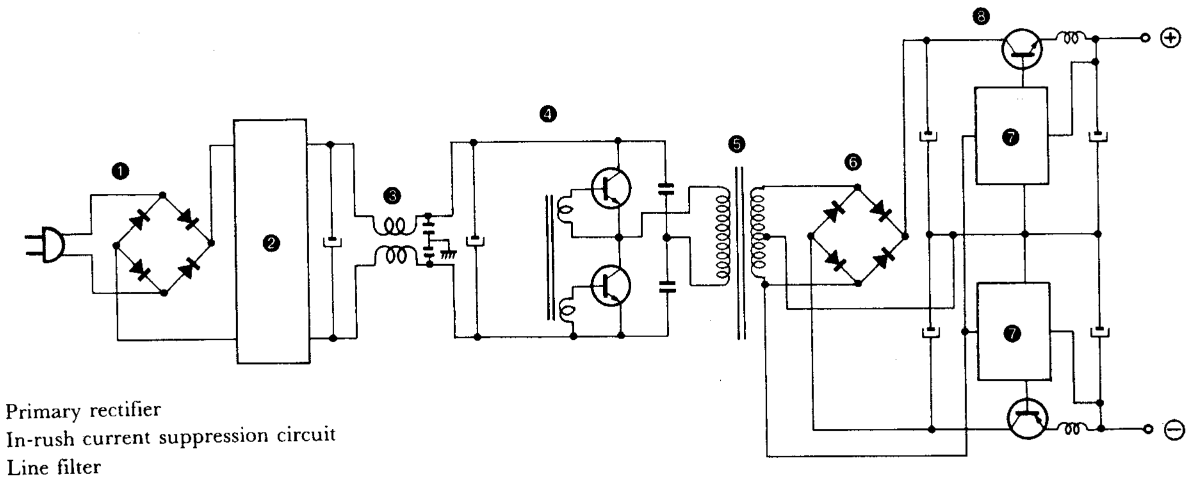
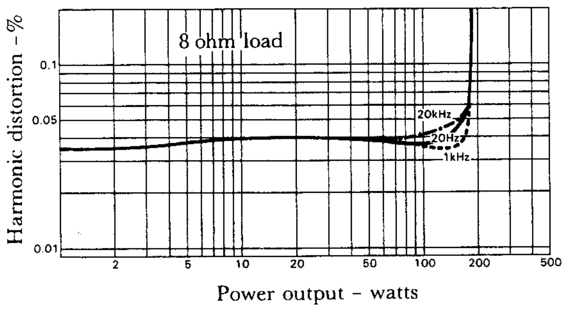
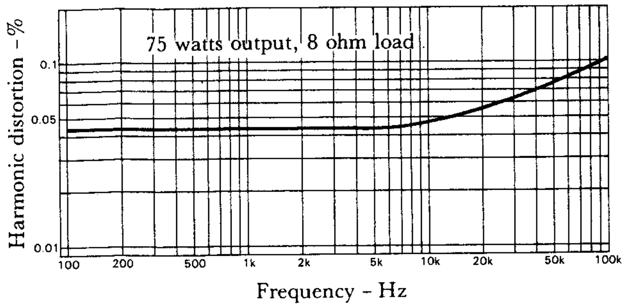


- ❶ Primary rectifier
- ❷ In-rush current suppression circuit
- ❸ Line filter
- ❹ 20 kHz power oscillator
- ❺ Converter transformer
- ❻ Secondary rectifier
- ❼ Pulse-width control circuit
- ❽ Pulse-width control voltage regulator

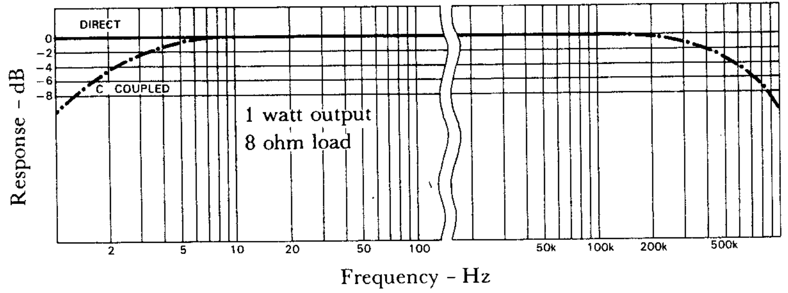
Power output vs. harmonic distortion



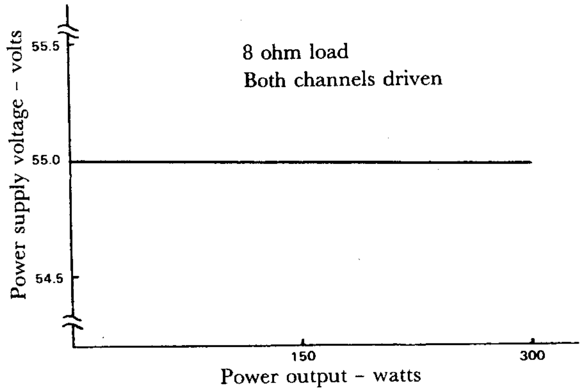
Power bandwidth



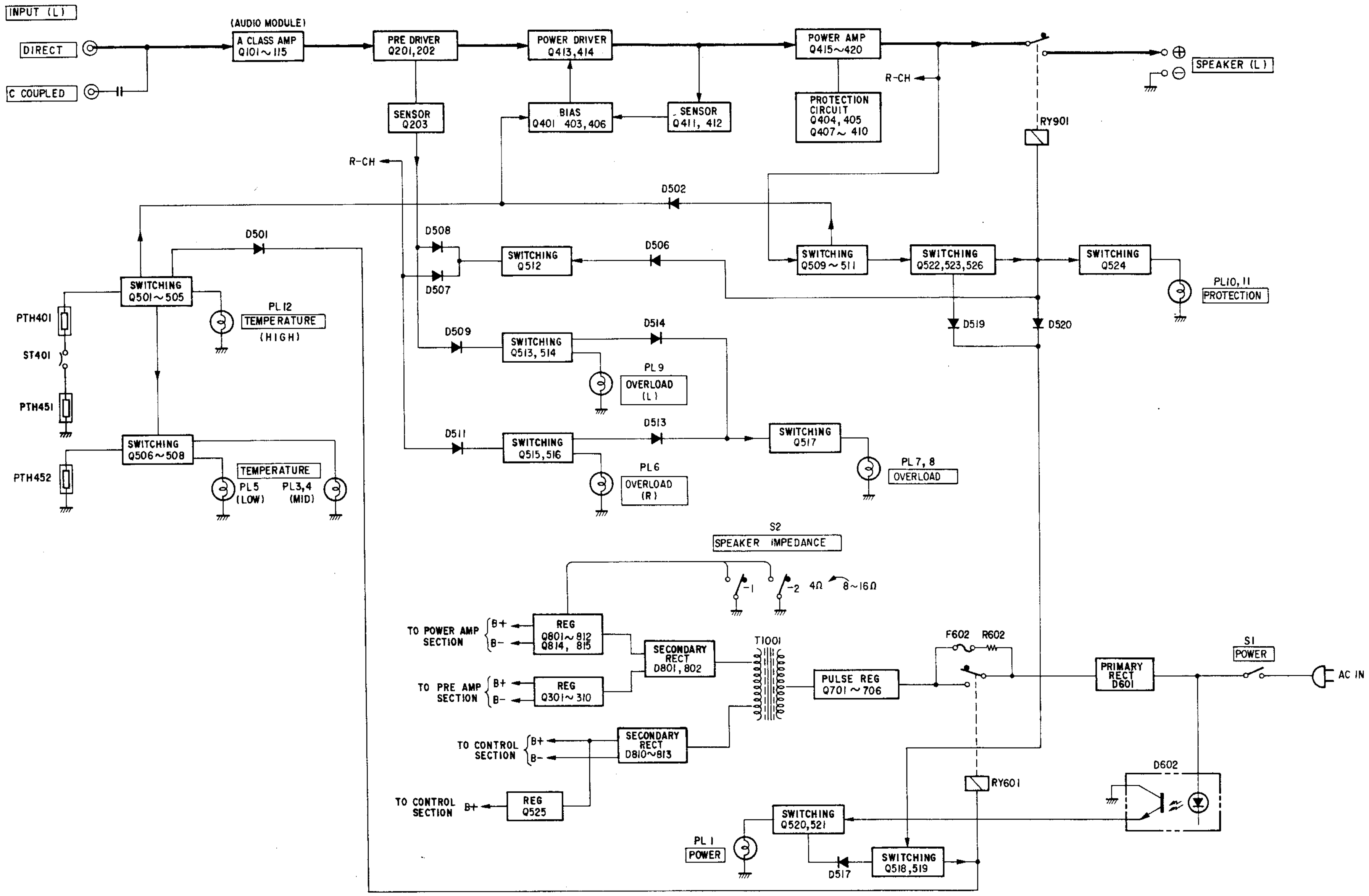
Frequency response

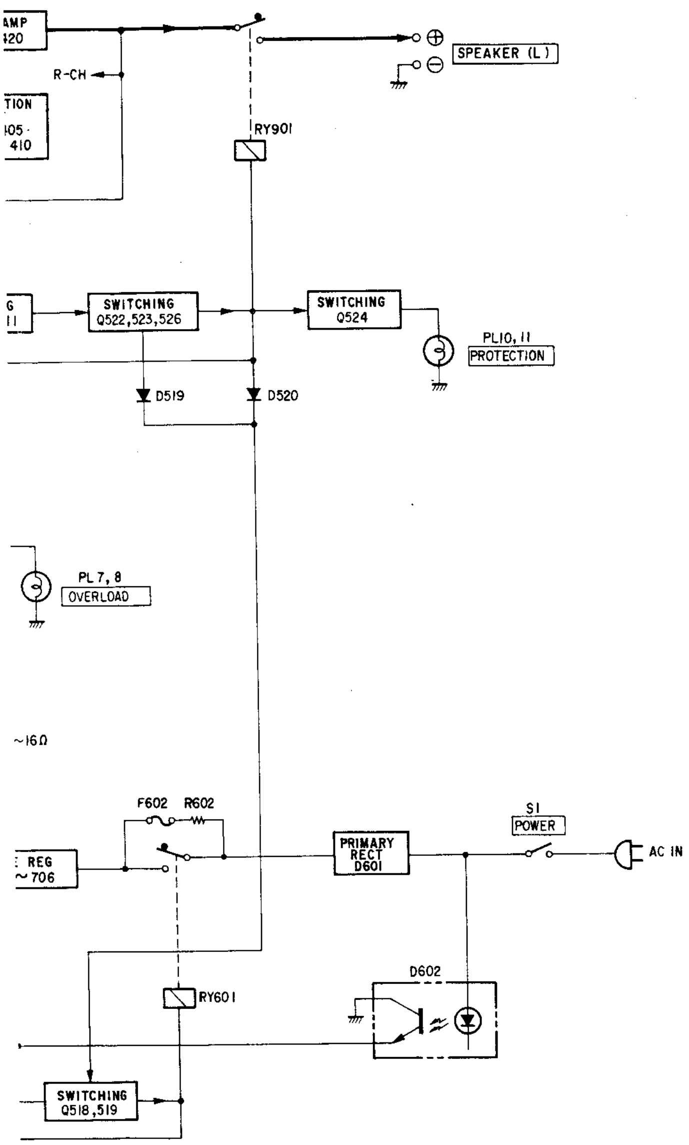


Power supply regulation characteristics



1-5. BLOCK DIAGRAM

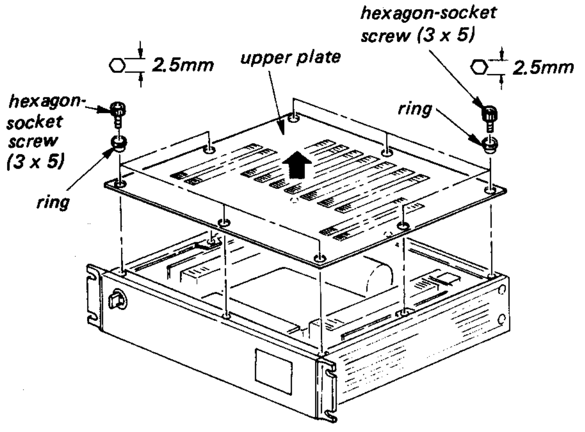

INPUT (L)
DIRECT
C COUPLED
(AUDIO MODULE)
A CLASS AMP Q101～115
PRE DRIVER Q201,202
POWER DRIVER Q413,414
POWER AMP Q415～420
SENSOR Q203
BIAS Q401 403,406
SENSOR Q411, 412
PROTECTION CIRCUIT Q404, 405 Q407～410
R-CH
R-CH
SPEAKER (L)
⊕
⊖
RY901
D502
D501
D508
D507
D506
SWITCHING Q512
SWITCHING Q509～511
SWITCHING Q522,523,526
SWITCHING Q524
PL10, 11
PROTECTION
D519
D520
SWITCHING Q501～505
PL12
TEMPERATURE
(HIGH)
PTH401
ST401
PTH451
SWITCHING Q506～508
PTH452
TEMPERATURE
PL5 (LOW)
PL3,4 (MID)
D509
SWITCHING Q513, 514
D514
PL9
OVERLOAD (L)
D511
SWITCHING Q515,516
D513
PL6
OVERLOAD (R)
SWITCHING Q517
PL7, 8
OVERLOAD
S2
SPEAKER IMPEDANCE
-1
-2
4Ω
8～16Ω
TO POWER AMP SECTION
B+
B-
REG Q801～812 Q814, 815
SECONDARY RECT D801, 802
TO PRE AMP SECTION
B+
B-
REG Q301～310
T1001
PULSE REG Q701～706
F602
R602
PRIMARY RECT D601
S1
POWER
AC IN
TO CONTROL SECTION
B+
B-
SECONDARY RECT D810～813
TO CONTROL SECTION
B+
REG Q525
D602
RY601
SWITCHING Q520,521
PL1
POWER
SWITCHING Q518,519
D517


AMP
120
R-CH
TION
405-
410
RY901
SPEAKER (L)
SWITCHING Q522,523,526
SWITCHING Q524
PL10, 11
PROTECTION
D519
D520
PL 7, 8
OVERLOAD
~16Ω
F602
R602
S1
POWER
PRIMARY RECT D601
AC IN
REG
~706
D602
RY601
SWITCHING Q518,519

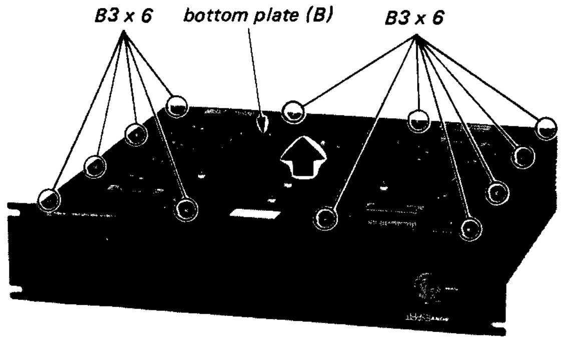
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

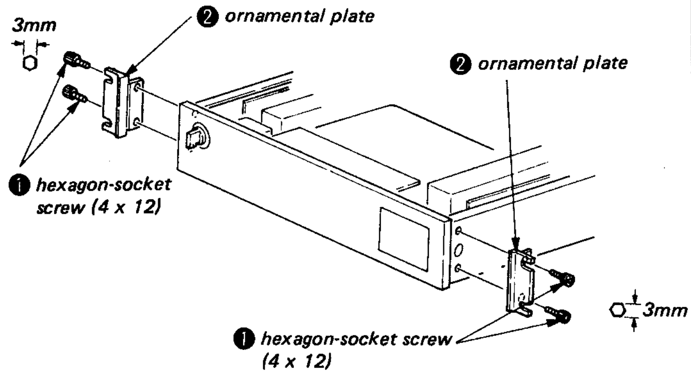
UPPER PLATE


hexagon-socket screw (3 x 5)
2.5mm
upper plate
2.5mm
hexagon-socket screw (3 x 5)
ring
ring

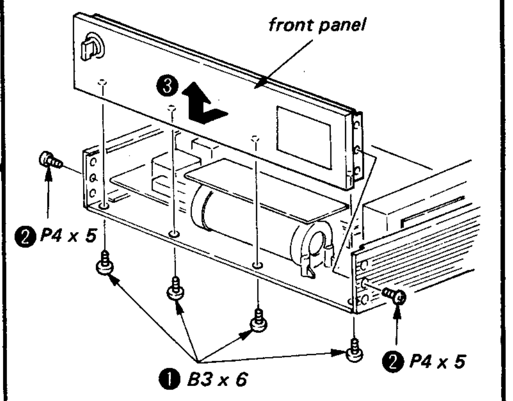
BOTTOM PLATE (B)


B3 x 6
bottom plate (B)
B3 x 6

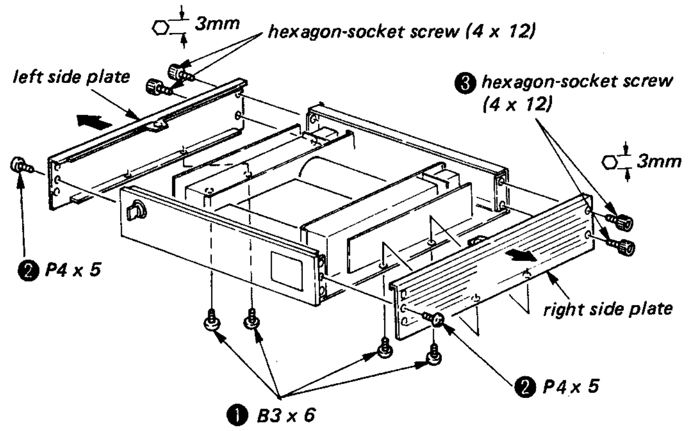
ORNAMENTAL PLATE


3mm
② ornamental plate
② ornamental plate
① hexagon-socket screw (4 x 12)
① hexagon-socket screw (4 x 12)
3mm

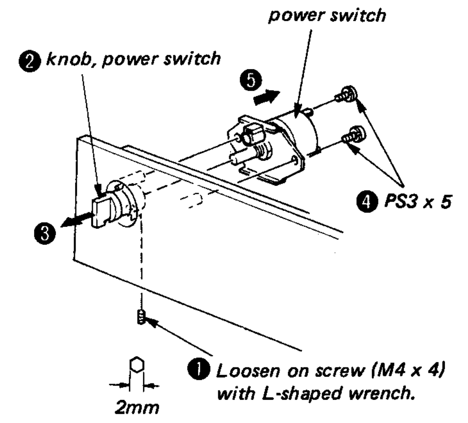
FRONT PANEL


front panel
③
② P4 x 5
① B3 x 6
② P4 x 5

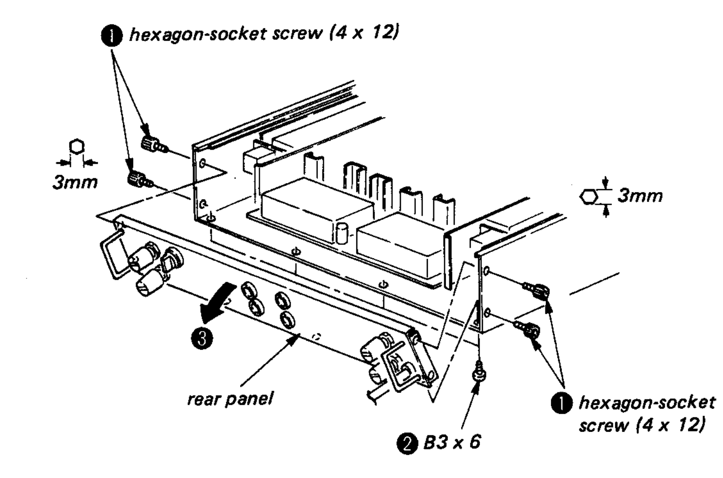
SIDE PLATE


3mm
hexagon-socket screw (4 x 12)
left side plate
③ hexagon-socket screw (4 x 12)
3mm
② P4 x 5
right side plate
② P4 x 5
① B3 x 6

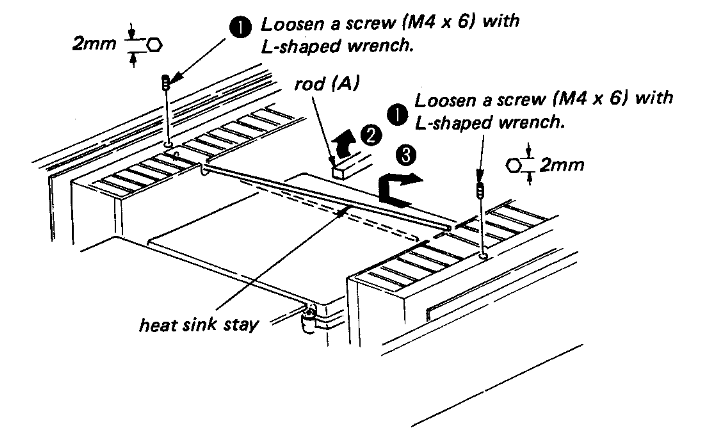
POWER SWITCH/KNOB


power switch
② knob, power switch
⑤
④ PS3 x 5
③
① Loosen on screw (M4 x 4) with L-shaped wrench.
2mm

REAR PANEL

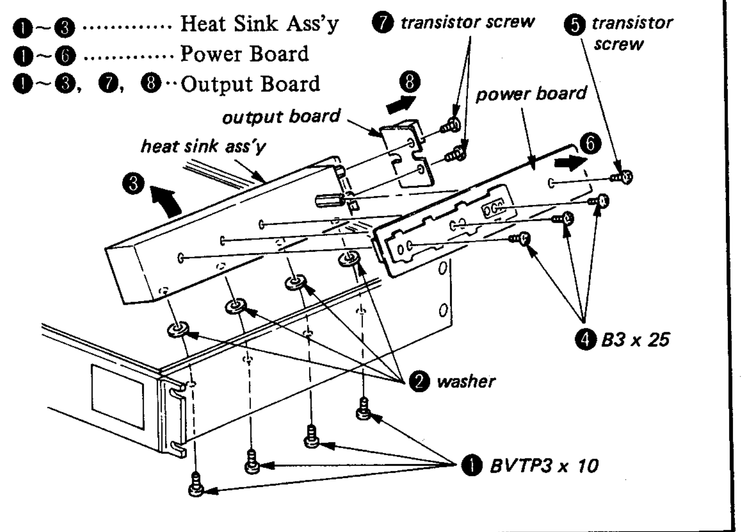

❶ hexagon-socket screw (4 x 12)
3mm
3mm
❸
rear panel
❷ B3 x 6
❶ hexagon-socket screw (4 x 12)

HEAT SINK STAY


2mm
❶ Loosen a screw (M4 x 6) with L-shaped wrench.
rod (A)
❷
❶ Loosen a screw (M4 x 6) with L-shaped wrench.
❸
2mm
heat sink stay

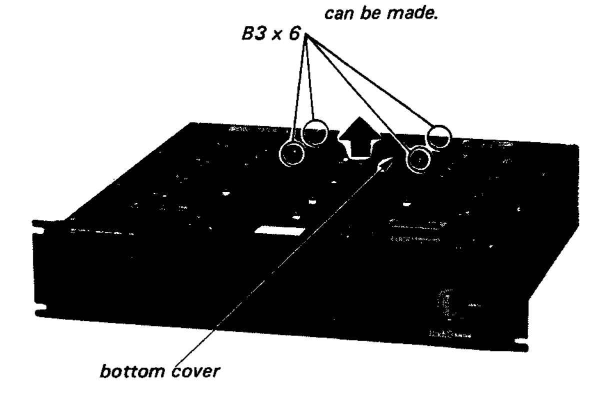
HEAT SINK ASS'Y/POWER BOARD/OUTPUT BOARD

❶~❸ ………… Heat Sink Ass'y
❶~❻ ………… Power Board
❶~❸, ❼, ❽ ··Output Board

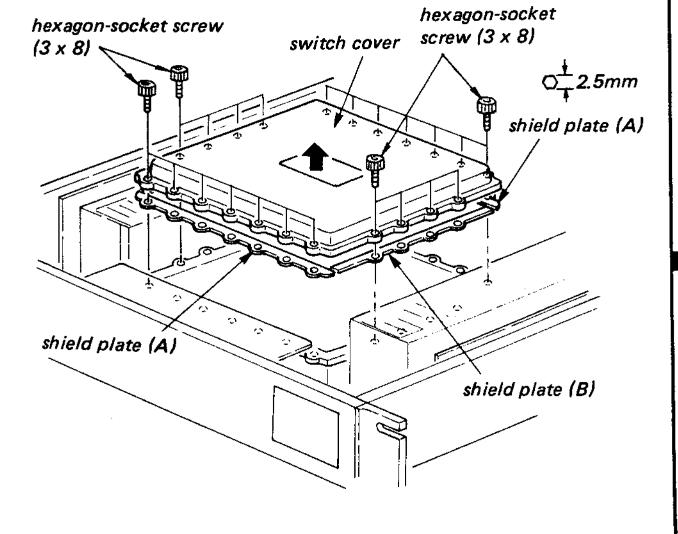

❼ transistor screw
❺ transistor screw
❽
power board
output board
heat sink ass'y
❻
❸
❹ B3 x 25
❷ washer
❶ BVTP3 x 10

BOTTOM COVER

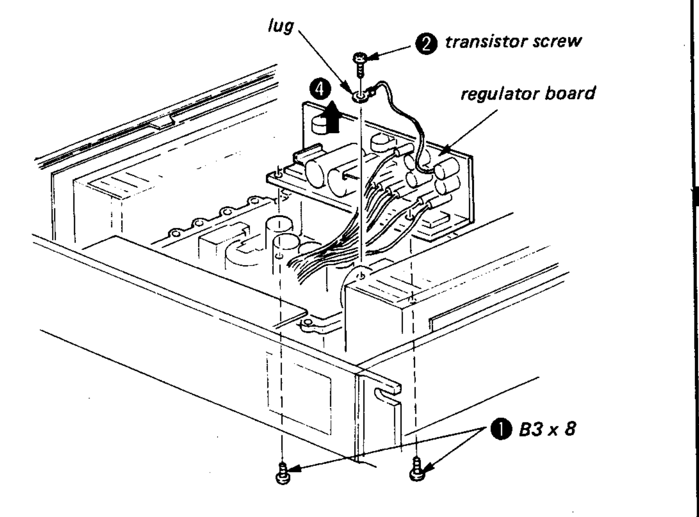
※ When the bottom cover is removed, check or repair of pre-amp board can be made.


B3 x 6
bottom cover

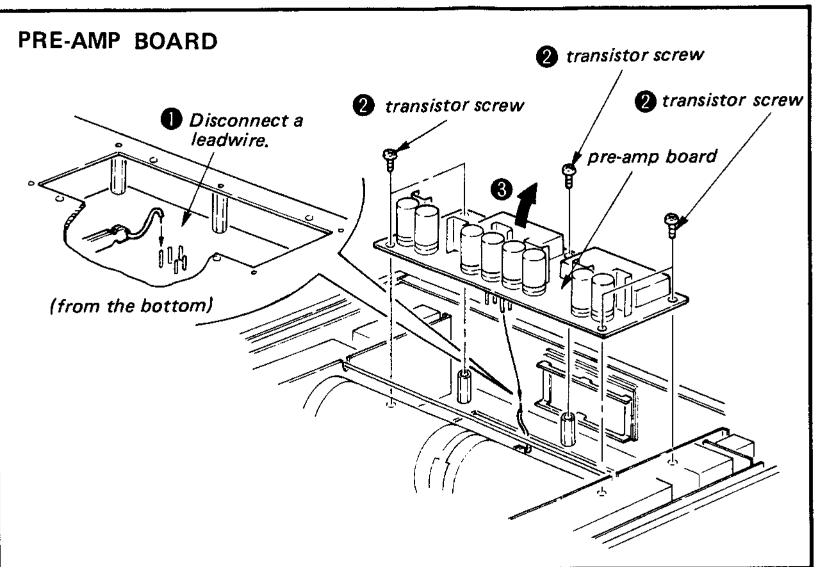
SWITCH COVER


hexagon-socket screw (3 x 8)
switch cover
hexagon-socket screw (3 x 8)
2.5mm
shield plate (A)
shield plate (A)
shield plate (B)

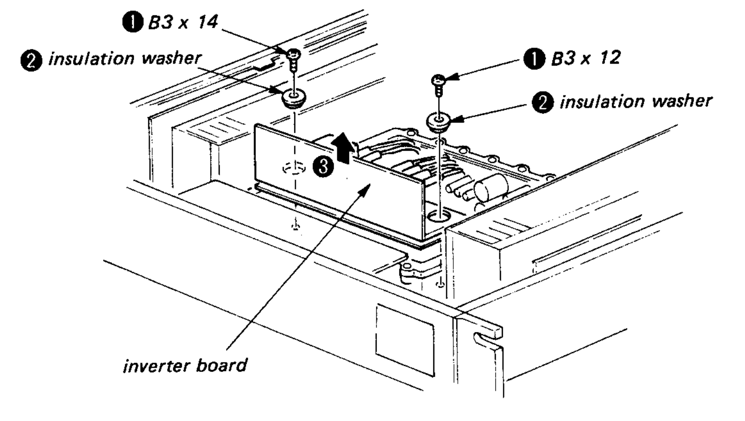
REGULATOR BOARD


lug
❷ transistor screw
regulator board
❹
❸
❶ B3 x 8

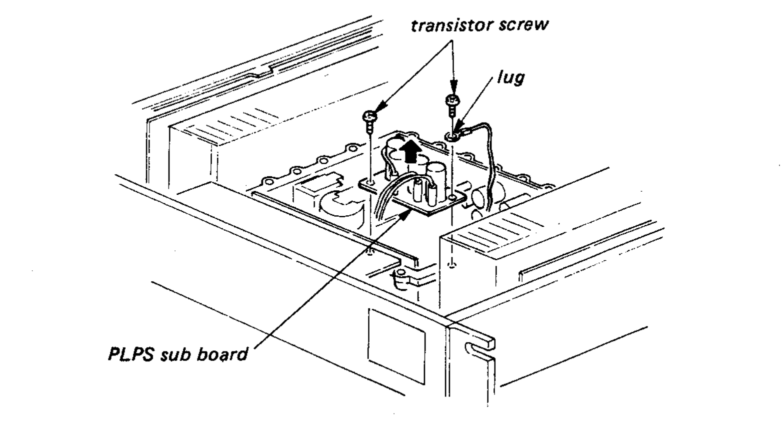
PRE-AMP BOARD


❷ transistor screw
❶ Disconnect a leadwire.
❷ transistor screw
❷ transistor screw
pre-amp board
❸
(from the bottom)

INVERTER BOARD


❶ B3 x 14
❷ insulation washer
❶ B3 x 12
❷ insulation washer
❸
inverter board

PLPS SUB BOARD

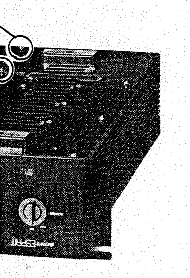

transistor screw
lug
PLPS sub board

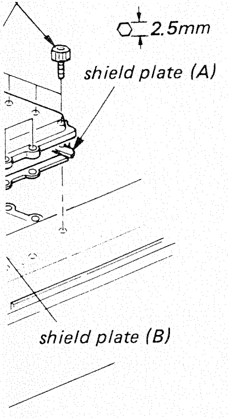
B+

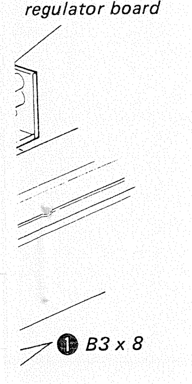
Pr

Ac

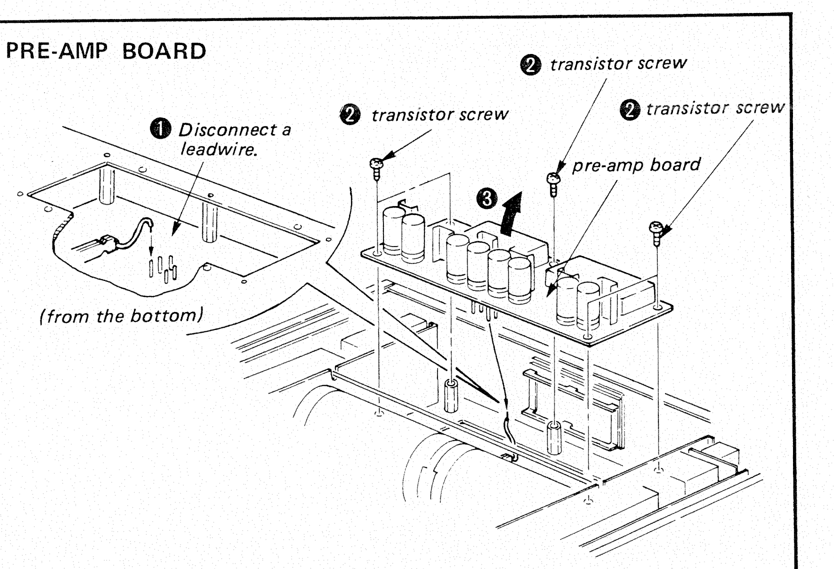
ottom cover is removed, epair of pre-amp board de.



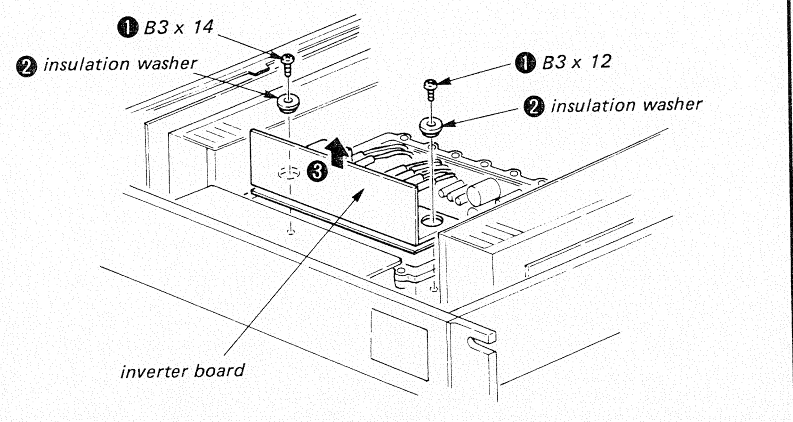

exagon-socket
crew (3 x 8)
2.5mm
shield plate (A)
shield plate (B)


ransistor screw
regulator board
❶ B3 x 8

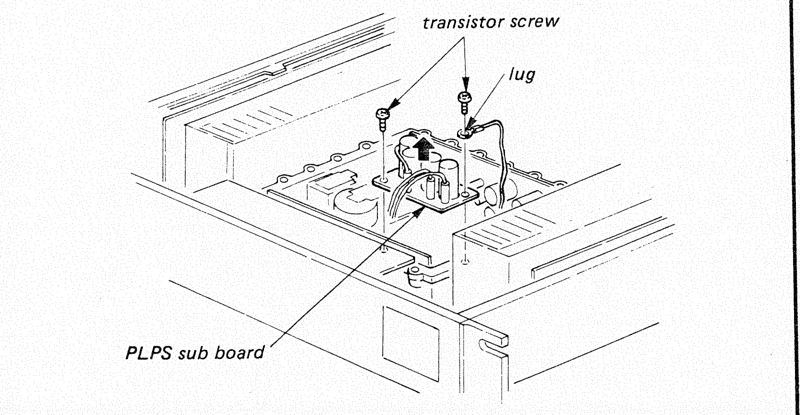
PRE-AMP BOARD


❶ Disconnect a leadwire.
(from the bottom)
❷ transistor screw
❷ transistor screw
❷ transistor screw
pre-amp board
❸

INVERTER BOARD


❶ B3 x 14
❷ insulation washer
❶ B3 x 12
❷ insulation washer
❸
inverter board

PLPS SUB BOARD


transistor screw
lug
PLPS sub board

SECTION 3
ADJUSTMENTS

B+ VOLTAGE ADJUSTMENT

Procedure:

Adjust RT801 so that the VOM reading is as follows:

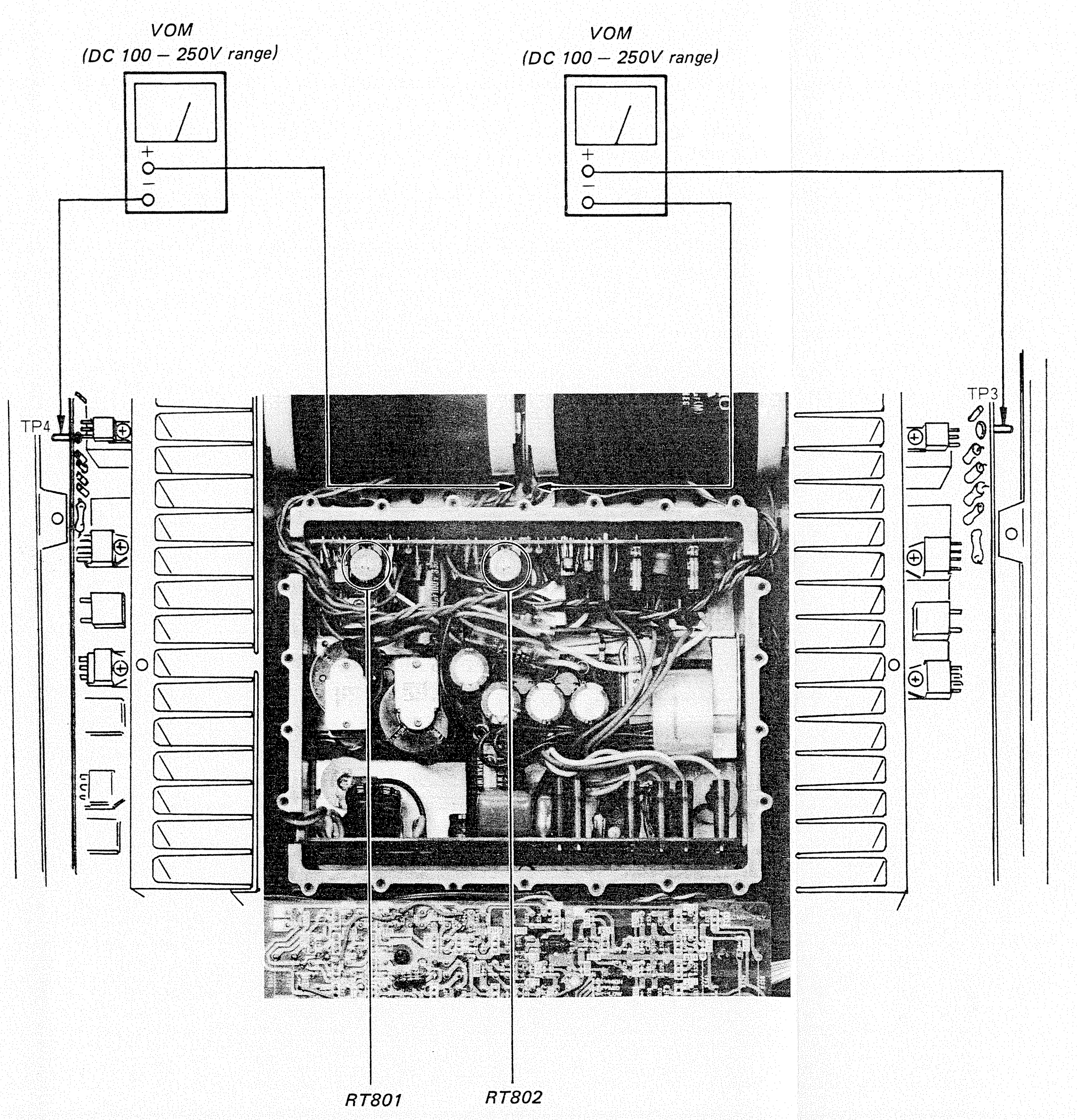
SPEAKER IMPEDANCE (S2) SWITCH	VOM reading
8 – 16Ω	55V
4Ω	37 – 39V

B– VOLTAGE ADJUSTMENT

Procedure:

Adjust RT802 so that the VOM reading is as follows:

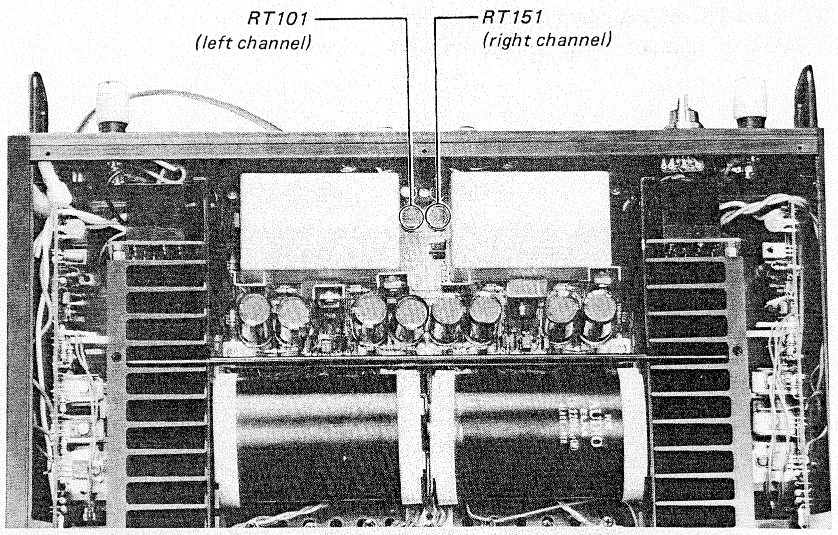
SPEAKER IMPEDANCE (S2) SWITCH	VOM reading
8 – 16Ω	55V
4Ω	37 – 39V

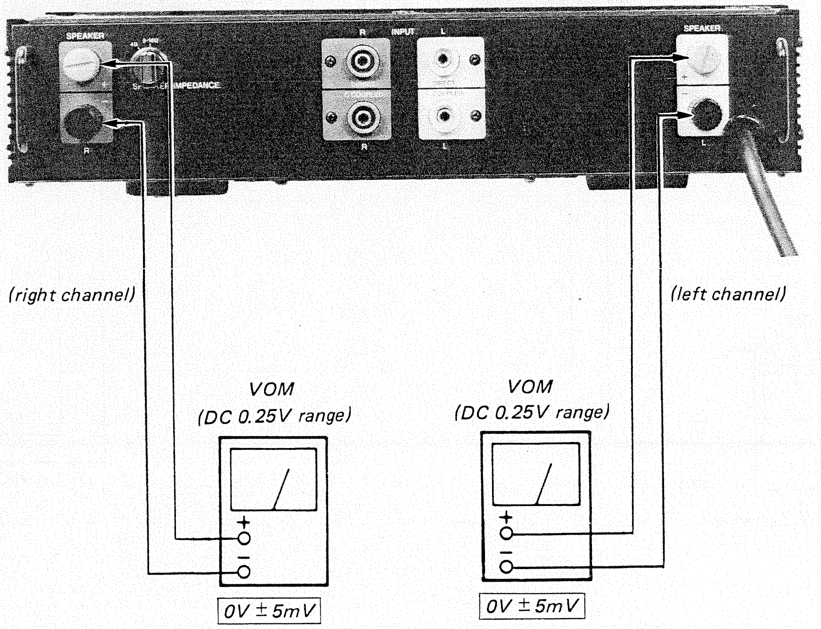

VOM
(DC 100 – 250V range)
+
–
VOM
(DC 100 – 250V range)
+
–
TP4
TP3
RT801
RT802

OFFSET ADJUSTMENT

Procedure:

6 minutes after the POWER switch (S1) is turned on, adjust RT101 (left channel), RT151 (right channel) for 0V ±5mV reading on VOM with no signal.

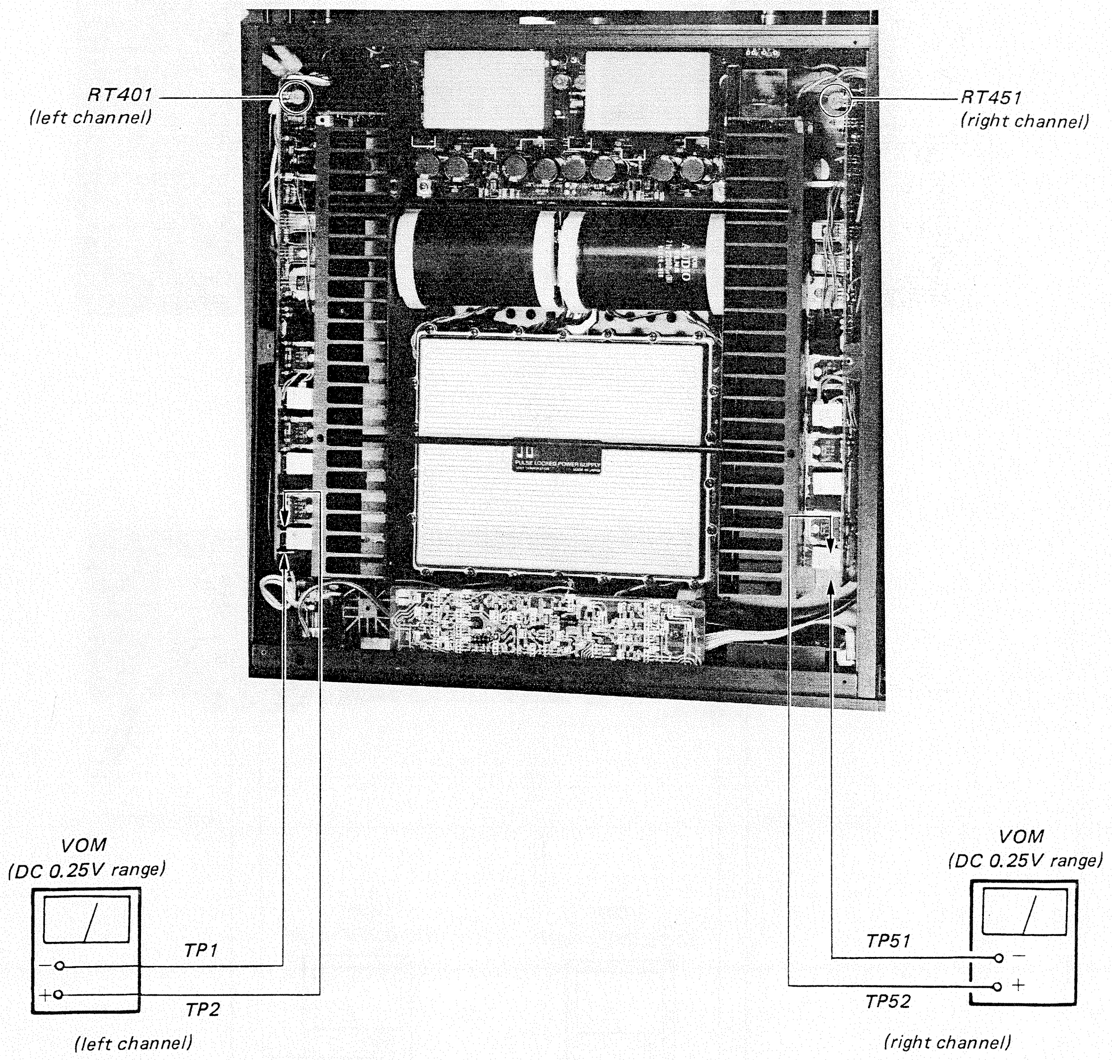

RT101
(left channel)
RT151
(right channel)


SPEAKER
SPEAKER IMPEDANCE
INPUT
R
L
SPEAKER
(right channel)
(left channel)
VOM
(DC 0.25V range)
VOM
(DC 0.25V range)
+
−
+
−
0V ± 5mV
0V ± 5mV

IDLING CURRENT ADJUSTMENT

Procedure:

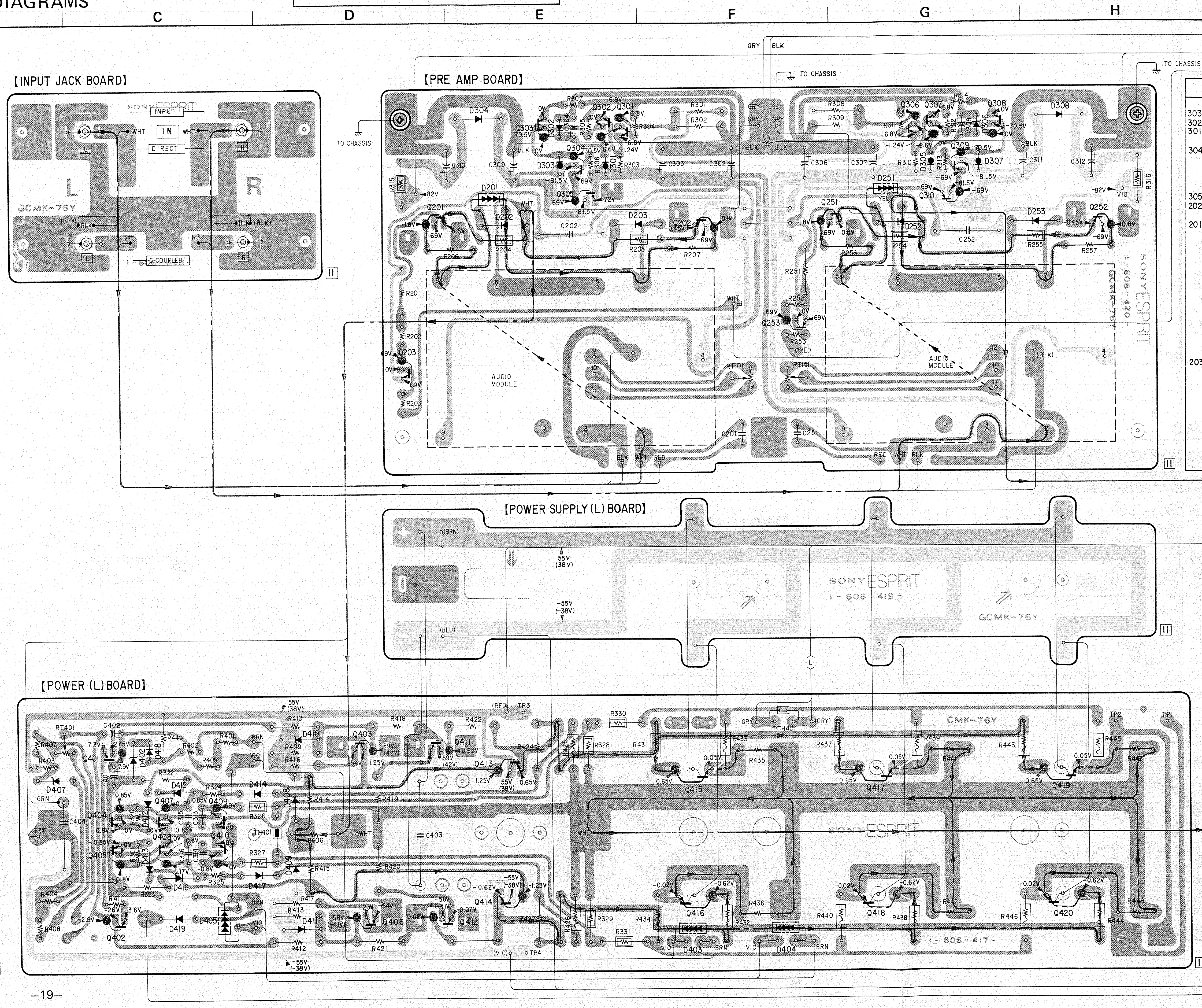
1. Set a SPEAKER IMPEDANCE switch at the 8 – 16Ω position and turn the POWER switch (S1) on.
2. After 15 minutes, adjust RT401 (left channel), RT451 (right channel) so that VOM reading between TP1 and TP2 of left channel and between TP51 and TP52 of right channel become 45mV.


RT401
(left channel)
RT451
(right channel)
VOM
(DC 0.25V range)
TP1
TP2
(left channel)
VOM
(DC 0.25V range)
TP51
TP52
(right channel)
–
+
–
+

SECTION 4
DIAGRAMS

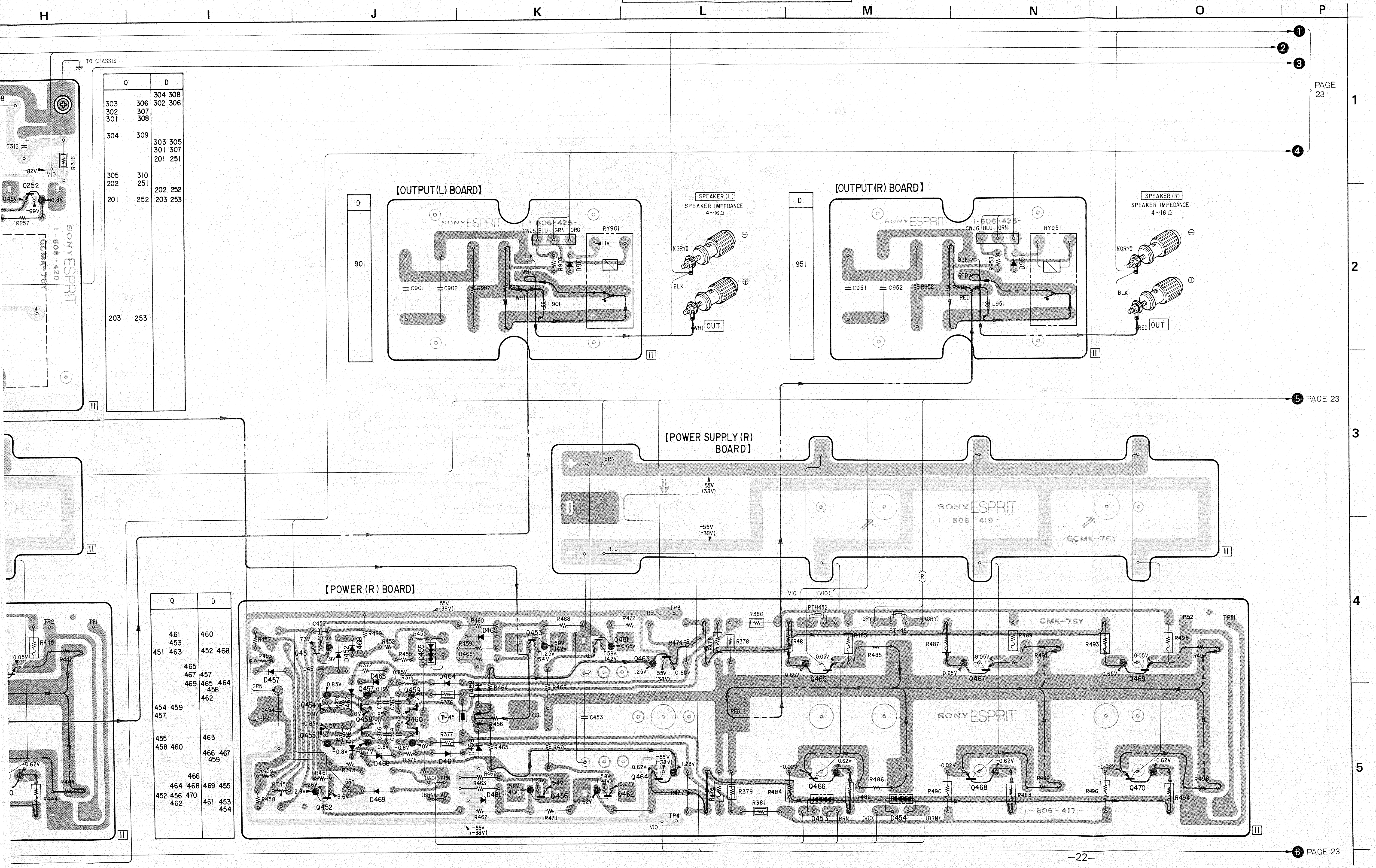
4-1. MOUNTING DIAGRAM

Note:
- ○—: parts extracted from the component side.
- ●—: parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ▨ : B+ pattern
- ▨ : B- pattern
- ▬ ➡ ▬ : signal path
- ▬ ▪ ➡ : L-CH signal path
- ▬ ▪ ▪ ➡ : R-CH signal path


A
B
C
D
E
F
G
H
1
2
3
4
5
[INPUT JACK BOARD]
INPUT
IN
DIRECT
L
R
GCMK-76Y
C COUPLED
[PRE AMP BOARD]
TO CHASSIS
AUDIO MODULE
SONY ESPRIT
1-606-420-
GCMK-76Y
[POWER SUPPLY (L) BOARD]
55V (38V)
-55V (-38V)
SONY ESPRIT
1-606-419-
GCMK-76Y
[POWER (L) BOARD]
CMK-76Y
SONY ESPRIT
1-606-417-
TP1
TP2
TP3
TP4

Q
303 302 301
304
305 202
201
203

Q	D
411 403 401 413	410 402 418
415 417 419	407 415 414 408 412
404 409 407	
405 408 410	413 416 417
416 414 418 402 406 420 412	409 419 405 411 403 404


H
I
J
K
L
M
N
O
P
1
2
3
4
5
TO CHASSIS
PAGE 23
【OUTPUT(L) BOARD】
【OUTPUT(R) BOARD】
SPEAKER (L)
SPEAKER IMPEDANCE 4~16Ω
SPEAKER (R)
SPEAKER IMPEDANCE 4~16Ω
RY901
RY951
1-606-425-
OUT
SONY ESPRIT
1-606-420-
GCMK-76Y
【POWER SUPPLY (R) BOARD】
1-606-419-
【POWER (R) BOARD】
1-606-417-
CMK-76Y
PAGE 23
Q
D
901
951
Q451
Q452
Q453
Q454
Q455
Q456
Q457
Q458
Q459
Q460
Q461
Q462
Q463
Q464
Q465
Q466
Q467
Q468
Q469
Q470
D453
D454
55V (38V)
-55V (-38V)

4-2. MOUNTING DIAGRAM

- Refer to page 30 for semiconductor lead layouts.

NOTE FOR SCHEMATIC DIAGRAM

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ——— : B+ bus.
- – – – : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions when green TEMPERATURE indicator lights up and SPEAKER IMPEDANCE switch is set at the 8 – 16Ω position. ( ) : SPEAKER IMPEDANCE at the 4Ω position

- Switch

Ref. No.	Switch	Position
S1 S2	POWER SPEAKER IMPEDANCE	OFF 8 – 16Ω

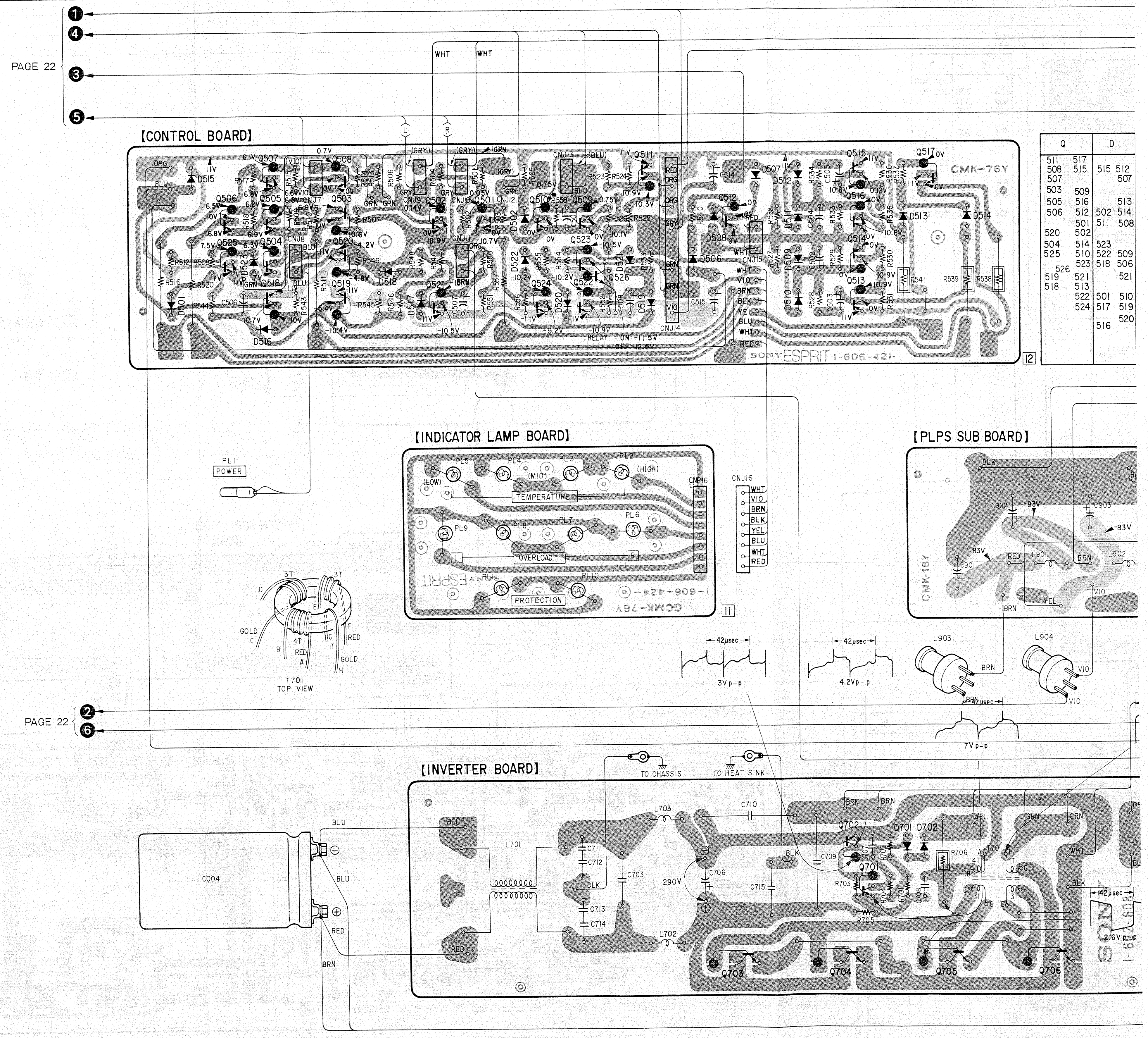
- ➡ : signal path

Note: Voltages are measured with a VOM (50kΩ/V).

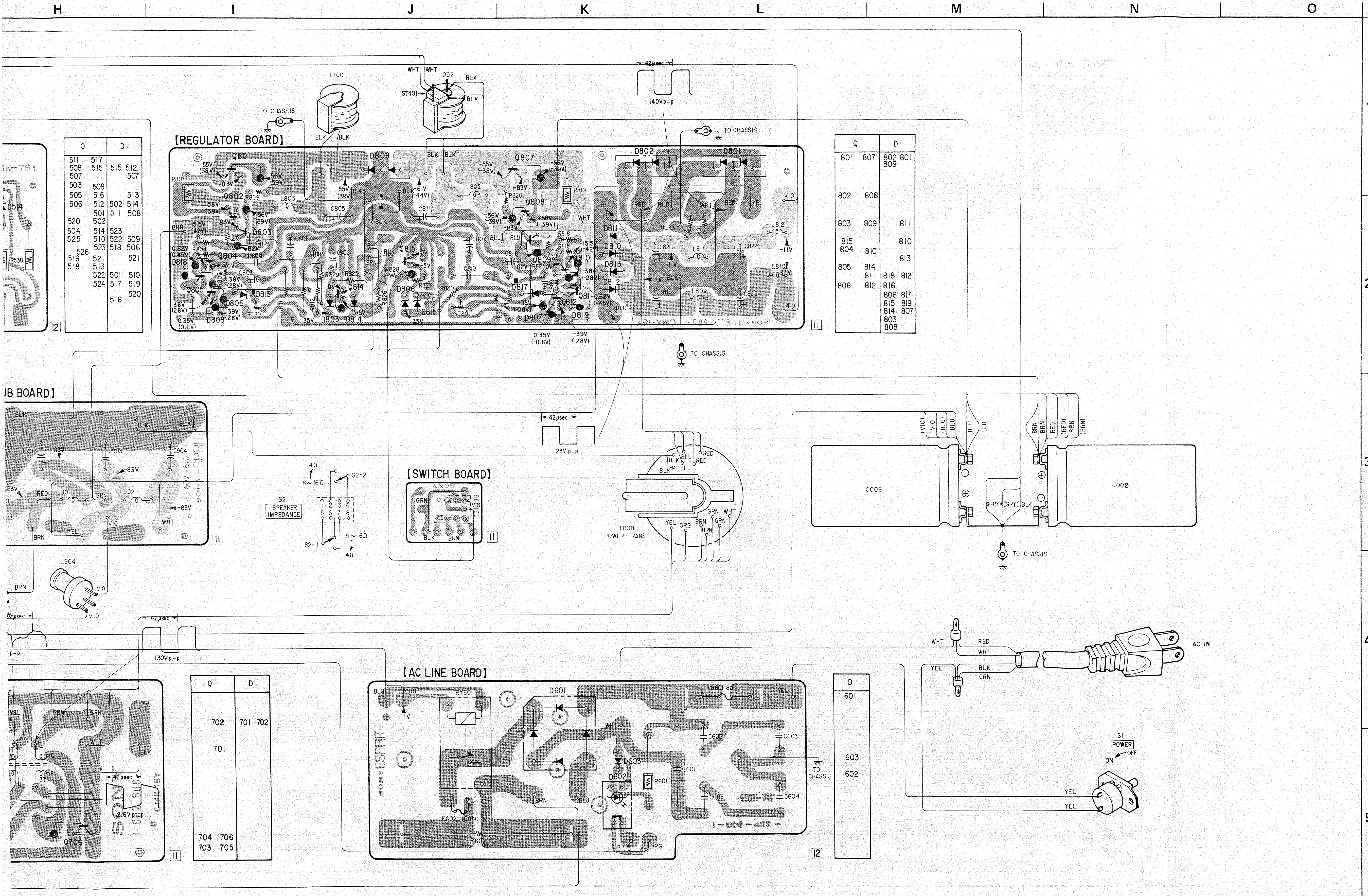
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

NOTE FOR MOUNTING DIAGRAM

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ▒ : B+ pattern
- ▒ : B- pattern
- ▬ ➡ ▬ : signal path
- ▬ ▪ ➡ : L-CH signal path
- ▬ ▪▪ ➡ : R-CH signal path


A
B
C
D
E
F
G
H
1
2
3
4
5
PAGE 22
❶
❹
❸
❺
WHT
WHT
L
R
[CONTROL BOARD]
CMK-76Y
SONY ESPRIT 1-606-421-
12
CNJ13
CNJ14
CNJ15
RELAY ON: -11.5V OFF: -12.6V
[INDICATOR LAMP BOARD]
PL1 POWER
PL2 (HIGH)
PL3 (MID)
PL4
PL5 (LOW)
PL6
PL7
PL8
PL9
PL10
TEMPERATURE
OVERLOAD
PROTECTION
CNP16
CNJ16
GCMK-76Y
1-606-424-
11
T701 TOP VIEW
GOLD
RED
3T
4T
1T
[PLPS SUB BOARD]
CMK-18Y
C901
C902
C903
L901
L902
L903
L904
83V
-83V
42μsec
3Vp-p
4.2Vp-p
7Vp-p
PAGE 22
❷
❻
[INVERTER BOARD]
TO CHASSIS
TO HEAT SINK
C004
L701
L702
L703
C703
C706
C709
C710
C715
290V
Q701
Q702
Q703
Q704
Q705
Q706
D701
D702
R703
R705
R706
2.6Vp-p

Q		D	
511	517		
508	515	515	512
507			507
503	509		
505	516		513
506	512	502	514
	501	511	508
520	502		
504	514	523	
525	510	522	509
	523	518	506
526			
519	521		521
518	513		
	522	501	510
	524	517	519
			520
		516	


H
I
J
K
L
M
N
O
1
2
3
4
5
[REGULATOR BOARD]
L1001
L1002
ST401
WHT
BLK
TO CHASSIS
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
Q809
Q810
Q811
Q812
Q815
D801
D802
D803
D806
D807
D808
D809
D810
D811
D812
D813
D814
D815
D816
D817
D818
D819
L803
L805
L809
L810
L811
L812
C805
C811
C819
C820
C821
C822
R808
R809
R819
R820
V10
140Vp-p
42μsec
55V (38V)
56V (39V)
-55V (-38V)
-56V (-39V)
-83V
61V (-44V)
15.5V (42V)
0.62V (0.45V)
-0.35V (-0.6V)
-39V (-28V)
-11V
BLU
RED
YEL
BRN
CMK-76Y
[SWITCH BOARD]
S2 SPEAKER IMPEDANCE
S2-1
S2-2
4Ω
8～16Ω
GRN
23V p-p
T1001 POWER TRANS
ORG
C005
C002
TO CHASSIS
(V10)
(BLU)
(RED)
(BRN)
GRY
UB BOARD]
C902
C903
C904
L901
L902
L904
-83V
83V
SONY ESPRIT
1-612-610-
130V p-p
2.6V p-p
Q706
[AC LINE BOARD]
RY601
D601
D602
D603
C601
C602
C603
C604
C605
C608
R601
R602
F602 109°C
11V
1-606-422-
TO CHASSIS
WHT
RED
BLK
GRN
YEL
AC IN
S1 POWER
ON
OFF
11
12

Q		D	
511	517		
508	515	515	512
507			507
503	509		
505	516		513
506	512	502	514
	501	511	508
520	502		
504	514	523	
525	510	522	509
526	523	518	506
519	521		521
518	513		
	522	501	510
	524	517	519
			520
		516	

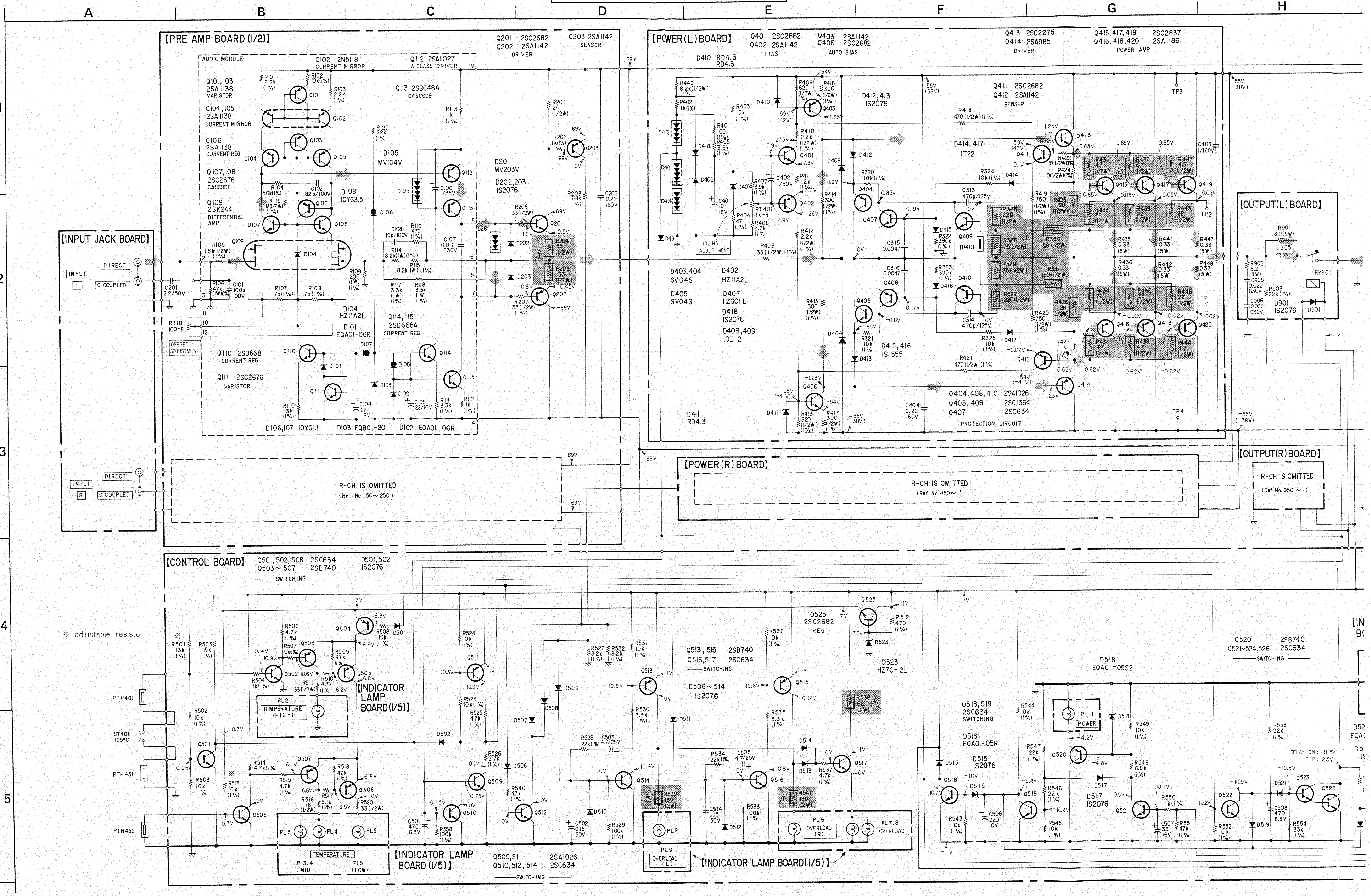
Q		D	
801	807	802 809	801
802	808		
803	809		811
815			810
804	810		
			813
805	814		
	811	818	812
806	812	816	
		806	817
		815	819
		814	807
		803 808	

Q	D	
702	701	702
701		
704	706	
703	705	

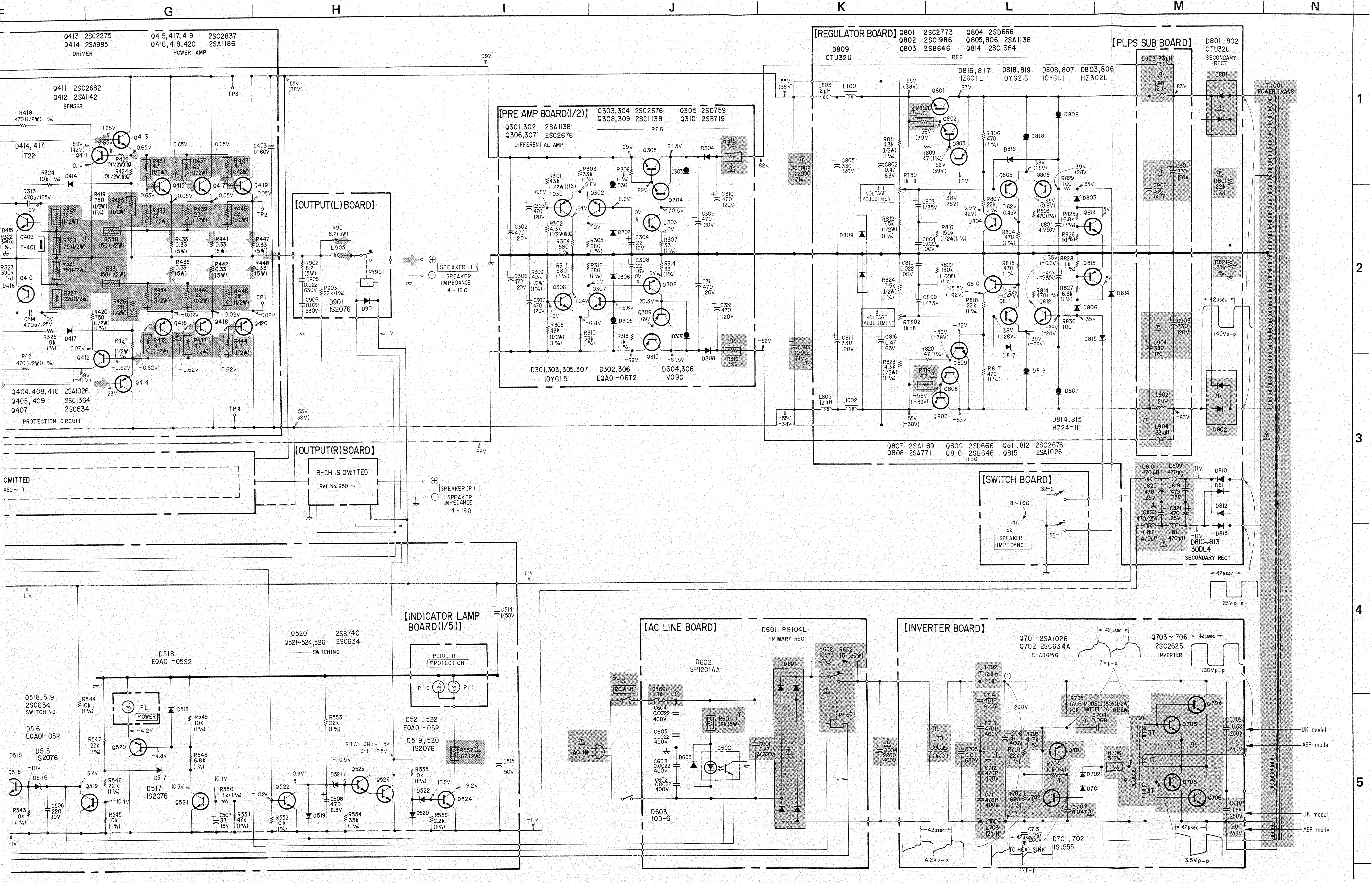
D
601
603
602

4-3. SCHEMATIC DIAGRAM • Refer to page 23 for note.

TA-N901 TA-N901



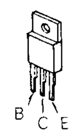
A
B
C
D
E
F
G
H
1
2
3
4
5
[PRE AMP BOARD (1/2)]
AUDIO MODULE
Q101, 103 2SA1138 VARISTOR
Q104, 105 2SA1138 CURRENT MIRROR
Q106 2SA1138 CURRENT REG
Q107, 108 2SC2676 CASCODE
Q109 2SK244 DIFFERENTIAL AMP
Q102 2N5118 CURRENT MIRROR
Q112 2SA1027 A CLASS DRIVER
Q113 2SB648A CASCODE
D105 MV104V
D108 10YG3.5
D104 HZ11A2L
D101 EQA01-06R
Q114, 115 2SD668A CURRENT REG
Q110 2SD668 CURRENT REG
Q111 2SC2676 VARISTOR
D106, 107 10YG1.1
D103 EQB01-20
D102 EQA01-06R
Q201 2SC2682
Q202 2SA1142
DRIVER
Q203 2SA1142 SENSOR
D201 MV203V
D202, 203 IS2076
[INPUT JACK BOARD]
INPUT L
DIRECT
C COUPLED
INPUT R
OFFSET ADJUSTMENT
R-CH IS OMITTED (Ref No. 150 ~ 250)
[POWER (L) BOARD]
Q401 2SC2682
Q402 2SA1142
BIAS
Q403 2SA1142
Q406 2SC2682
AUTO BIAS
D410 RD4.3
D412, 413 IS2076
IDLING ADJUSTMENT
D403, 404 SV04S
D405 SV04S
D402 HZ11A2L
D407 HZ6C1L
D418 IS2076
D408, 409 10E-2
D415, 416 IS1555
D411 RD4.3
Q413 2SC2275
Q414 2SA985
DRIVER
Q411 2SC2682
Q412 2SA1142
SENSER
D414, 417 1T22
Q415, 417, 419 2SC2837
Q416, 418, 420 2SA1186
POWER AMP
Q404, 408, 410 2SA1026
Q405, 409 2SC1364
Q407 2SC634
PROTECTION CIRCUIT
TP1
TP2
TP3
TP4
[OUTPUT (L) BOARD]
D901 IS2076
RY901
[POWER (R) BOARD]
R-CH IS OMITTED (Ref No. 450 ~)
[OUTPUT (R) BOARD]
R-CH IS OMITTED (Ref No. 950 ~)
[CONTROL BOARD]
Q501, 502, 508 2SC634
Q503 ~ 507 2SB740
SWITCHING
D501, 502 IS2076
※ adjustable resistor
PTH401
ST401 105°C
PTH451
PTH452
PL2 TEMPERATURE (HIGH)
[INDICATOR LAMP BOARD (1/5)]
PL3, 4 (MID)
PL5 (LOW)
TEMPERATURE
[INDICATOR LAMP BOARD (1/5)]
Q509, 511 2SA1026
Q510, 512, 514 2SC634
SWITCHING
Q525 2SC2682 REG
D523 HZ7C-2L
Q513, 515 2SB740
Q516, 517 2SC634
SWITCHING
D506 ~ 514 IS2076
PL9 OVERLOAD (L)
PL6 OVERLOAD (R)
PL7, 8 OVERLOAD
[INDICATOR LAMP BOARD (1/5)]
Q518, 519 2SC634 SWITCHING
D516 EQA01-05R
D515 IS2076
D518 EQA01-05S2
PL1 POWER
D517 IS2076
Q520 2SB740
Q521~524, 526 2SC634
SWITCHING
RELAY ON: -11.5V OFF: 12.5V


F
G
H
I
J
K
L
M
N
1
2
3
4
5
Q413 2SC2275
Q414 2SA985
DRIVER
Q415,417,419 2SC2837
Q416,418,420 2SA1186
POWER AMP
Q411 2SC2682
Q412 2SA1142
SENSER
Q404,408,410 2SA1026
Q405,409 2SC1364
Q407 2SC634
PROTECTION CIRCUIT
TH401
TP1
TP2
TP3
TP4
55V (38V)
-55V (-38V)
69V
-69V
[OUTPUT(L) BOARD]
R901 8.2(5W)
L905
RY901
D901 1S2076
SPEAKER (L)
SPEAKER IMPEDANCE 4~16Ω
[OUTPUT(R) BOARD]
R-CH IS OMITTED
(Ref No. 950 ~)
SPEAKER (R)
SPEAKER IMPEDANCE 4~16Ω
OMITTED
[PRE AMP BOARD(1/2)]
Q301,302 2SA1138
Q306,307 2SC2676
DIFFERENTIAL AMP
Q303,304 2SC2676
Q308,309 2SC1138
Q305 2SD759
Q310 2SB719
REG
D301,303,305,307 10YG1.5
D302,306 EQA01-06T2
D304,308 V09C
[REGULATOR BOARD]
Q801 2SC2773
Q802 2SC1986
Q803 2SB646
Q804 2SD666
Q805,806 2SA1138
Q814 2SC1364
REG
D809 CTU32U
D816,817 HZ6C1L
D818,819 10YG2.6
D808,807 10YG1.1
D803,806 HZ302L
RT801 1k-B
B+ VOLTAGE ADJUSTMENT
RT802 1k-B
B- VOLTAGE ADJUSTMENT
D814,815 HZ24-1L
Q807 2SA1189
Q808 2SA771
Q809 2SD666
Q810 2SB646
Q811,812 2SC2676
Q815 2SA1026
REG
[PLPS SUB BOARD]
L903 33μH
L901 12μH
L902 12μH
L904 33μH
D801,802 CTU32U
SECONDARY RECT
D801
D802
T1001 POWER TRANS
42μsec
140Vp-p
[SWITCH BOARD]
S2-2
S2-1
8~16Ω
4Ω
S2 SPEAKER IMPEDANCE
D810~813 30DL4
SECONDARY RECT
23V p-p
[INDICATOR LAMP BOARD(1/5)]
PL10,11 PROTECTION
PL10
PL11
Q520 2SB740
Q521~524,526 2SC634
SWITCHING
D518 EQA01-05S2
Q518,519 2SC634
SWITCHING
D516 EQA01-05R
D515 1S2076
PL1 POWER
D517 1S2076
D521,522 EQA01-05R
D519,520 1S2076
RELAY ON: -11.5V
OFF: 12.5V
[AC LINE BOARD]
D601 PB104L
PRIMARY RECT
D602 SP1201AA
S1 POWER
AC IN
CB601 8A
R601 18k(5W)
F602 109°C
R602 15 (20W)
RY601
D603 10D-6
[INVERTER BOARD]
Q701 2SA1026
Q702 2SC634A
CHARGING
Q703~706 2SC2625
INVERTER
7Vp-p
130Vp-p
290V
R705 (AEP MODEL) 180k(1/2W)
(UK MODEL) 200k(1/2W)
T701
T4
UK model
AEP model
4.2Vp-p
TO HEAT SINK
D701,702 1S1555
3.5Vp-p

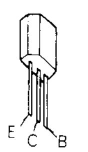
SECTION 5
EXPLODED VIEWS AND PARTS LIST

- **SEMICONDUCTOR LEAD LAYOUTS**

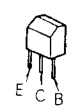
2SA771
2SA985
2SB720
2SC1986C
2SC2275
2SD760



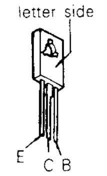
2SA1027R



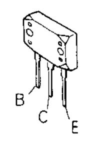
2SA1138F
2SB734
2SC2676



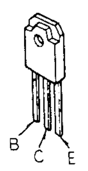
2SA1142R
2SC2682R


letter side
E
C
B

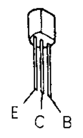
2SA1169R
2SC2773R



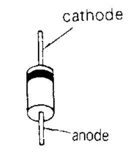
2SA1186
2SC2626A
2SC2837



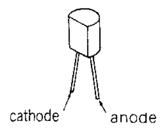
2SB646A
2SC1364
2SD666A



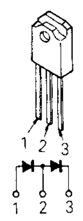
1S1555
1T22AM
10E2
30DL4
EQA01-05R
EQA01-05S2
EQA01-06T2
HZ6C2L
HZ7C2L
HZ11A2L
HZ24-1L
HZ30-2L
RD4.3E-B3


cathode
anode

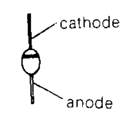
10YG1.1
10YG2.6


cathode
anode

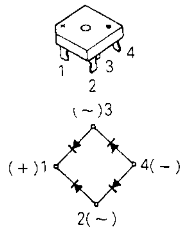
CTU-32U



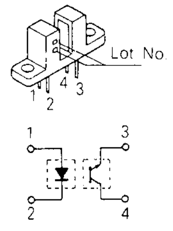
MV-104V
MV-203V
V09C


cathode
anode

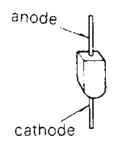
PB102F

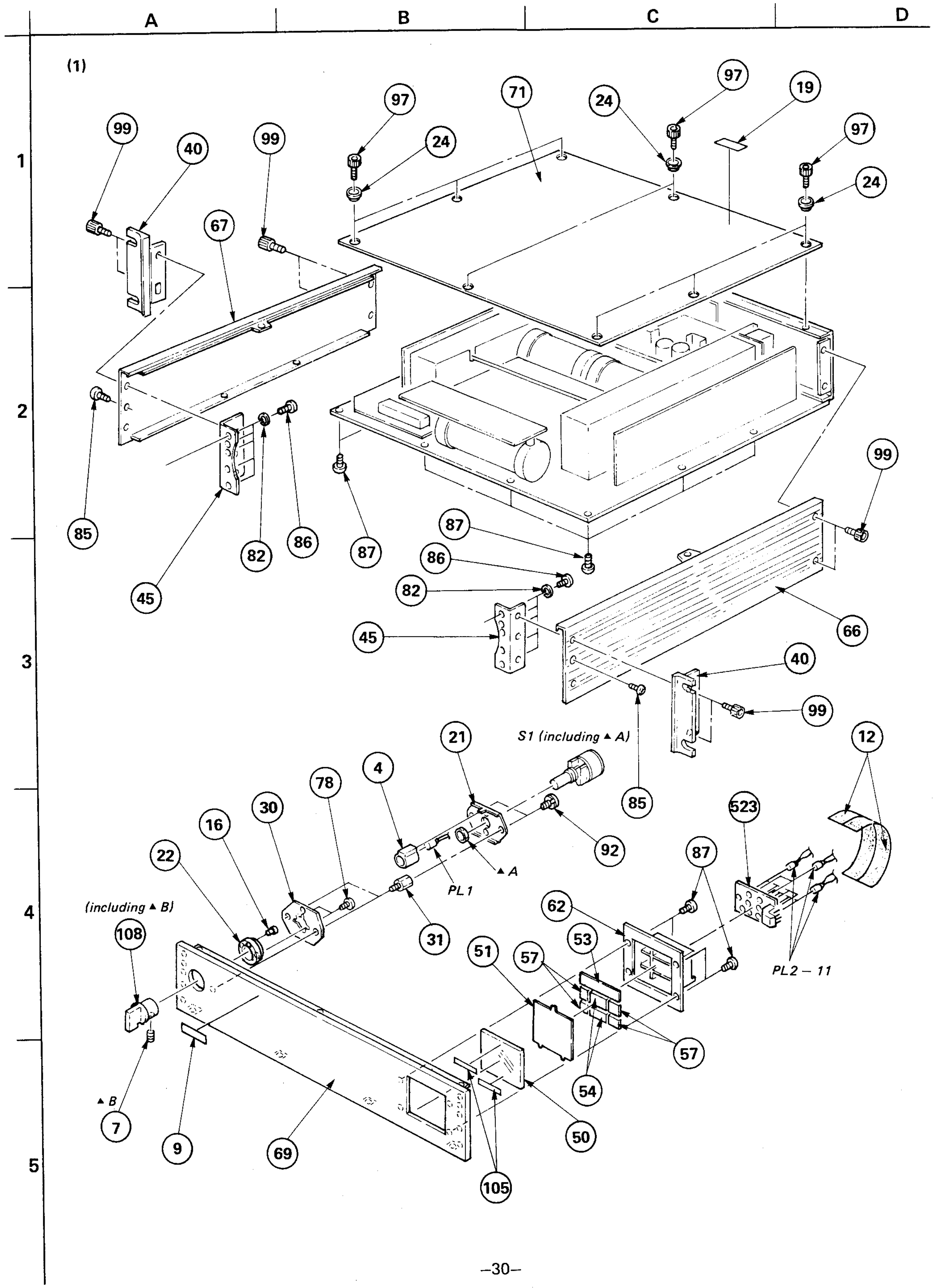


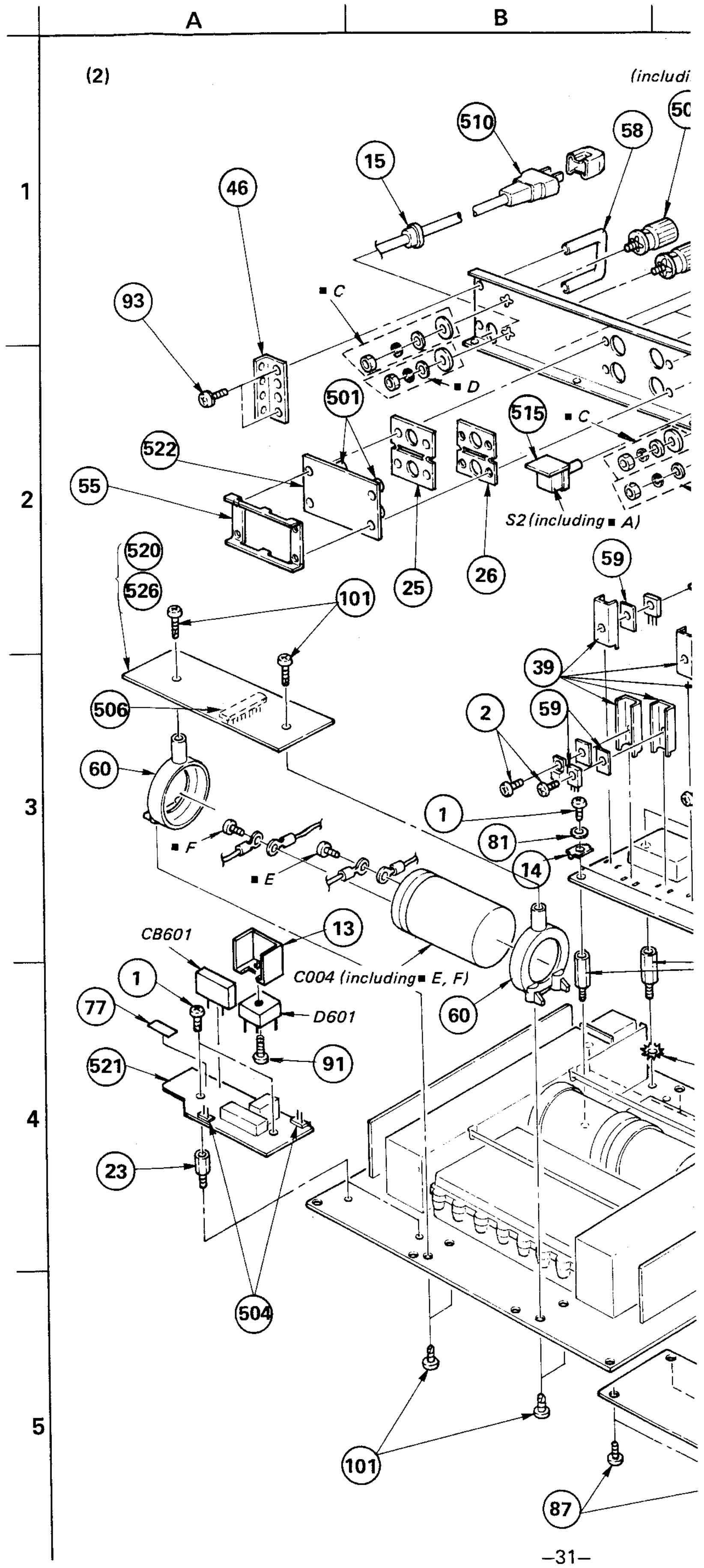
SP1201


Lot No
1
2
4
3
1
3
2
4

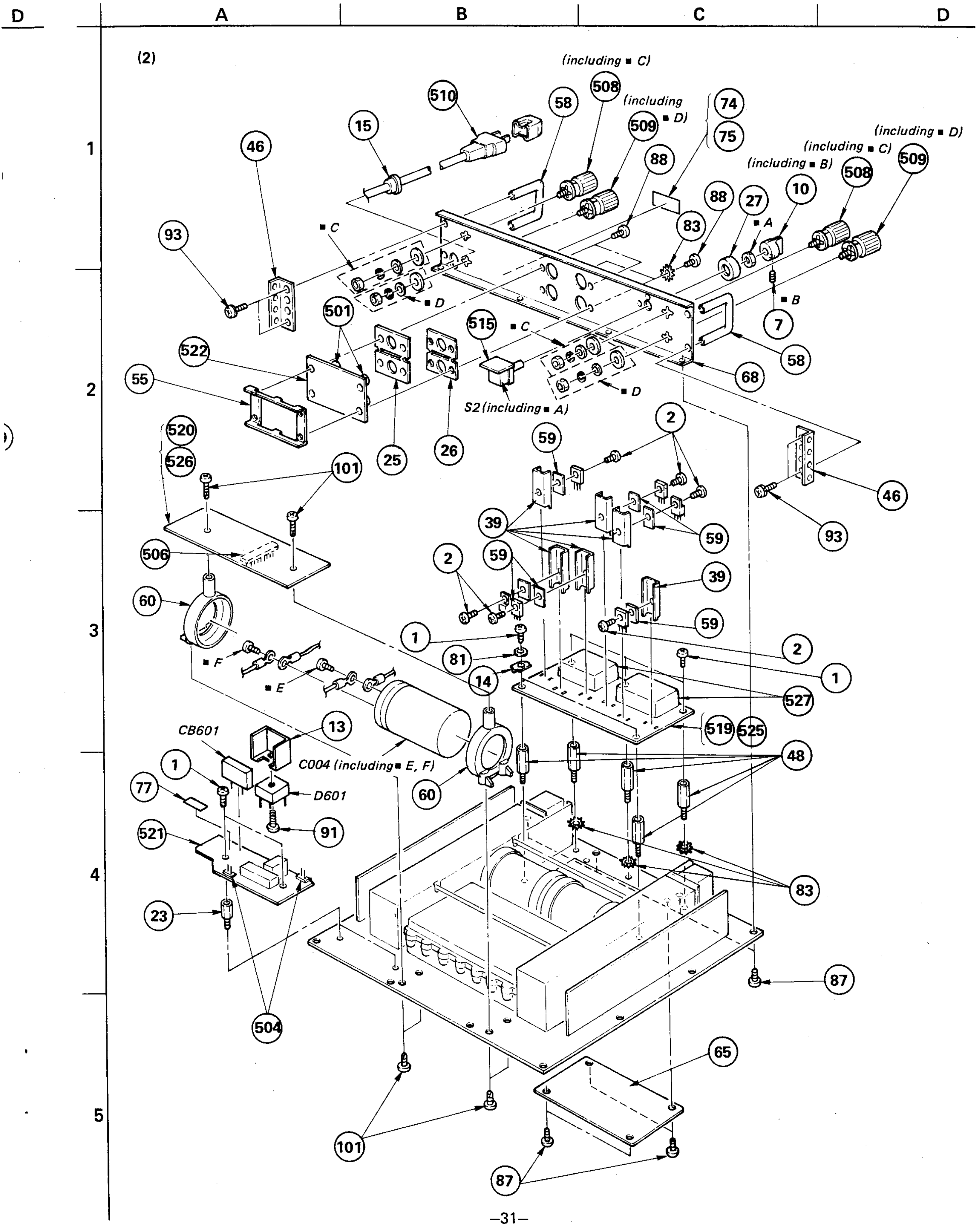
SV04S


anode
cathode

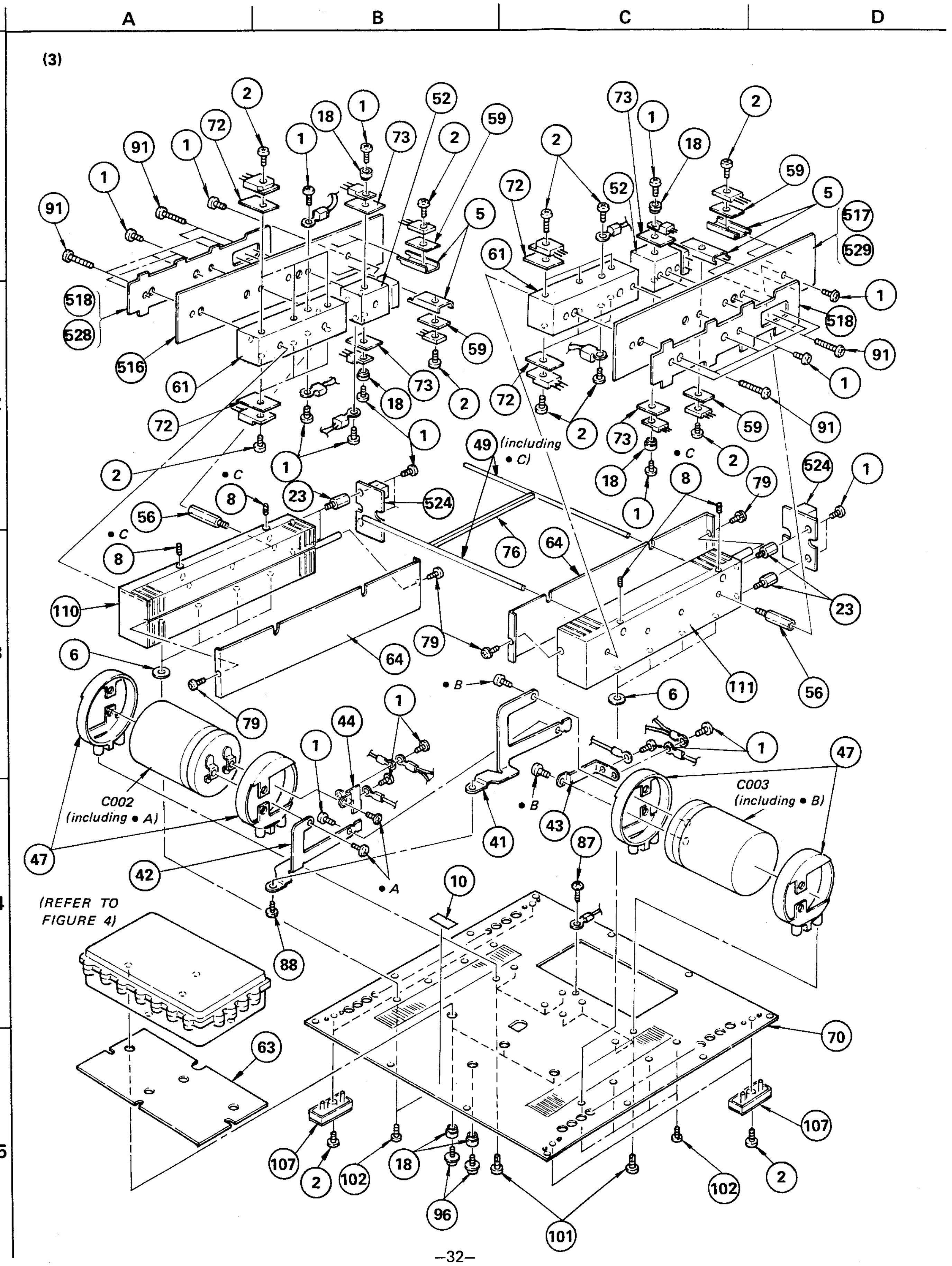

A
B
C
D
1
2
3
4
5
(1)
99
40
99
67
97
24
71
97
24
19
97
24
85
82
86
87
87
86
82
45
45
66
99
40
99
S1 (including ▲ A)
21
85
4
78
30
16
22
92
PL1
▲ A
31
(including ▲ B)
108
523
12
87
62
53
51
57
PL2 – 11
57
54
7
▲ B
9
69
105
50


A
B
1
2
3
4
5
(2)
(includi
510
58
50
15
46
93
■ C
■ D
501
515
■ C
522
55
25
26
S2 (including ■ A)
520
526
101
59
39
506
2
59
60
1
81
14
■ F
■ E
CB601
13
C004 (including ■ E, F)
1
77
D601
60
91
521
23
504
101
87

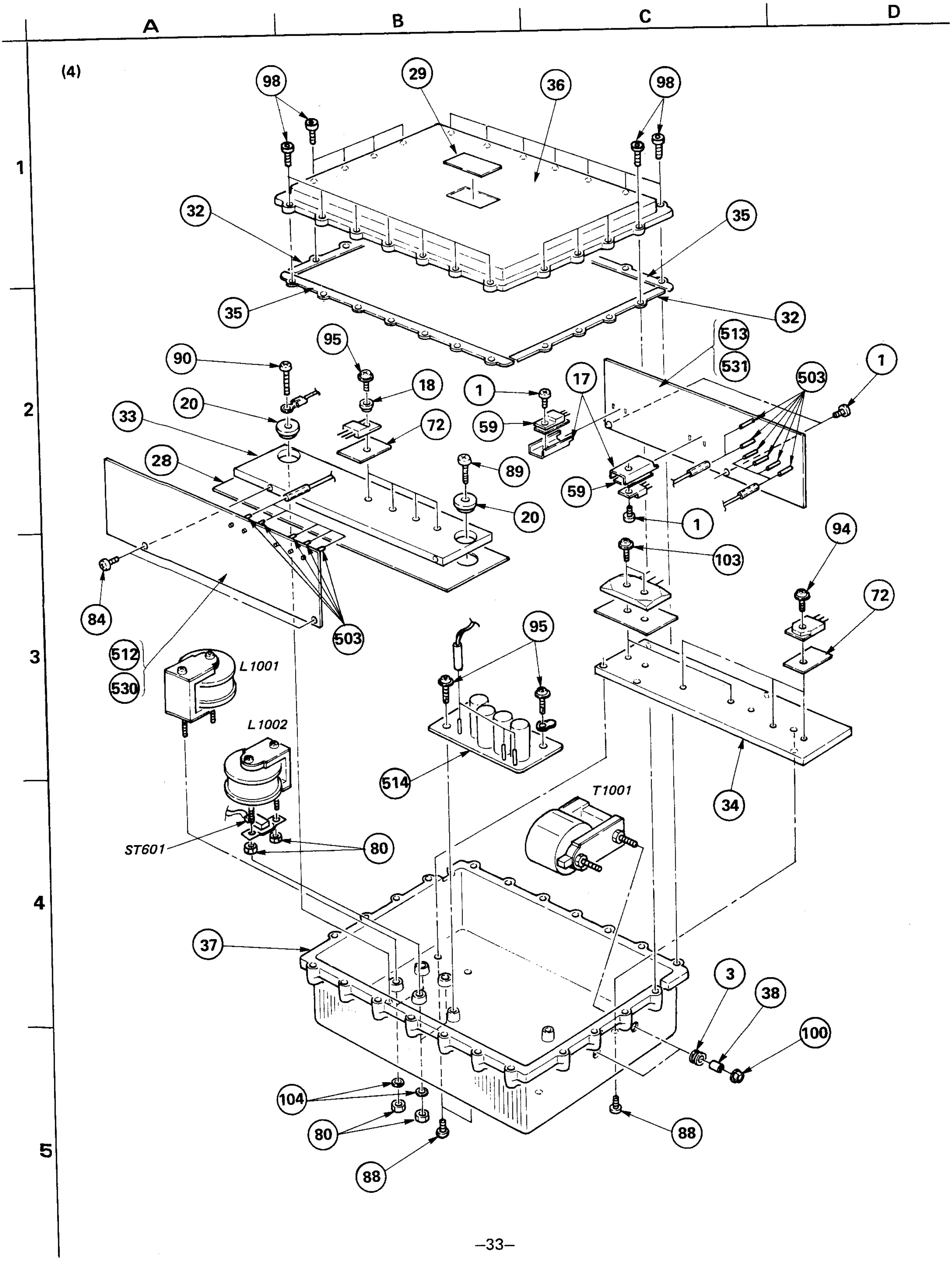
(2)


D
A
B
C
D
(including ■ C)
(including ■ D)
■ C
■ D
(including ■ B)
(including ■ C)
(including ■ D)
■ A
■ B
■ C
■ D
S2 (including ■ A)
■ F
■ E
CB601
C004 (including ■ E, F)
D601

(3)


A
B
C
D
49 (including ● C)
● C
● C
● C
● B
C002 (including ● A)
● B
C003 (including ● B)
● A
(REFER TO FIGURE 4)

(4)


A
B
C
D
L1001
L1002
T1001
ST601

GENERAL SECTION

No.	Part No.	Description
1	2-259-121-00	SCREW, TR
2	2-259-121-11	SCREW, TR
3	3-103-893-11	BUSHING, RUBBER
4	3-534-276-11	HOLDER, LAMP
5	♠;3-567-737-00	HEAT SINK
6	♠;3-641-284-00	WASHER, BOTTOM PLATE
7	3-701-510-00	SET SCREW, DOUBLE POINT 4X4
8	3-701-511-00	SET SCREW, DOUBLE POINT 4X6
9	3-701-690-00	(UK)....LABEL (MADE IN JAPAN)
10	3-703-043-00	(UK)....LABEL, CAUTION, MAIN
11	3-831-441-XX	FELT, PANEL
12	3-831-441-XX	SHEET, LIGHT INTERCEPTION
13	♠;4-304-464-00	HEAT SINK, S.P.M
14	♠;4-835-639-00	PLATE, GROUND
15	4-849-786-00	STOPPER, CORD
16	4-852-925-00	LENS, POWER LAMP
17	♠;4-854-790-00	HEAT SINK
18	4-857-425-00	BUSHING, 03P INSULATING
19	4-861-045-00	LABEL, CAUTION
20	4-861-050-00	SPACER, INSULATING
21	♠;4-870-203-00	BRACKET (A), POWER SWITCH
22	4-870-204-00	ORNAMENT, SWITCH (B)
23	♠;4-870-206-00	SUPPORT, PC BOARD
24	4-870-210-00	RING, PANEL RETAINER
25	4-870-214-00	ORNAMENTAL, JACK
26	4-870-214-11	ORNAMENTAL, JACK
27	4-870-217-00	WASHER, KNOB
28	4-870-218-00	SHEET, INSULATING (A)
29	♠;4-870-219-00	LABEL, SWITCH BOX
30	♠;4-870-220-00	BRACKET (B), POWER SWITCH
31	♠;4-870-221-00	SHAFT, FITTING, POWER SWITCH
32	4-870-230-00	PLATE, SHIELD (B)
33	♠;4-870-234-00	HEAT SINK (A)
34	♠;4-870-235-00	HEAT SINK (B)
35	4-870-244-00	PLATE, SHIELD (A)
36	♠;4-870-245-00	LID, SWITCH
37	♠;4-870-246-00	BOX, SWITCH
38	4-870-253-00	SPACER, TRANSFORMER
39	♠;4-870-273-00	HEAT SINK (E)
40	4-879-136-00	PANEL, SIDE
41	♠;4-879-901-00	PLATE (A), GROUND
42	♠;4-879-902-00	PLATE (B), GROUND
43	♠;4-879-903-00	PLATE (C), GROUND
44	♠;4-879-904-00	PLATE (D), GROUND
45	♠;4-879-905-00	ANGLE (A), FITTING, PANEL

GENERAL SECTION

No.	Part No.	Description
46	♠;4-879-906-00	ANGLE, PANEL, REAR
47	♠;4-879-907-00	HOLDER (B), C
48	♠;4-879-908-00	SUPPORT (B), PC BOARD
49	♠;4-879-909-00	STAY, HEAT SINK
50	4-879-910-00	GLASS, PLATE, DISPLAY
51	4-879-911-00	PLATE (A), LIGHT INTERCEPTION
52	♠;4-879-913-00	BLOCK (B), HEAT SINK
53	♠;4-879-914-00	PLATE (B), LIGHT INTERCEPTION
54	♠;4-879-915-00	PLATE (C), LIGHT INTERCEPTION
55	♠;4-879-916-00	RETAINER, PIN JACK
56	♠;4-879-917-00	STAY, PC BOARD
57	♠;4-879-918-00	PLATE (D), LIGHT INTERCEPTION
58	♠;4-879-919-00	ANGLE, GUARD
59	♠;4-879-920-00	SPACER, HEAT SINK
60	♠;4-879-922-00	HOLDER (A), C
61	♠;4-879-923-00	BLOCK (A), HEAT SINK
62	♠;4-879-924-00	CASE, INDICATION, SAFETY
63	♠;4-879-925-00	WASHER
64	♠;4-879-926-00	SUPPORT, HEAT SINK
65	♠;4-879-927-00	COVER, REAR
66	4-879-928-00	PLATE (RIGHT), SIDE
67	4-879-929-00	PLATE (LEFT), SIDE
68	4-879-930-11	PANEL, REAR
69	4-879-932-00	PANEL, FRONT
70	♠;4-879-933-00	PLATE (B), BOTTOM
71	4-879-934-00	PANEL, UPPER
72	4-879-937-00	SHEET, MICA
73	♠;4-879-945-00	SHEET (B), MICA
74	4-879-947-00	(AEP)......LABEL, MODEL NUMBER (AEP)
75	4-879-948-00	(UK).......LABEL, MODEL NUMBER (UK)
76	♠;4-879-949-00	ROD (A)
77	♠;4-879-951-00	LABEL, FUSE
78	7-621-284-00	SCREW +P 2.6X4
79	7-621-773-95	SCREW +B 2.6X6
80	7-622-205-05	N 2, TYPE 2
81	7-623-108-21	W 3, LARGE
82	7-623-212-22	SW 5, TYPE 2
83	7-623-422-07	LW 3, TYPE B
84	7-628-254-10	SCREW +PS 2.6X6
85	7-682-159-09	SCREW +P 4X5
86	7-682-174-09	SCREW +P 5X8
87	7-682-547-09	SCREW +B 3X6
88	7-682-548-09	SCREW +B 3X8
89	7-682-550-09	SCREW +B 3X12
90	7-682-551-09	SCREW +B 3X14

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♠ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

GENERAL SECTION

No.	Part No.	Description
91	7-682-554-09	SCREW +B 3X25
92	7-682-646-09	SCREW +PS 3X5
93	7-682-662-09	SCREW +PS 4X10
94	7-682-949-01	SCREW +PSW 3X10
95	7-682-949-09	SCREW +PSW 3X10
96	7-682-951-09	SCREW +PSW 3X14
97	7-683-402-04	BOLT, HEXAGON SOCKET 3X5
98	7-683-404-04	BOLT, HEXAGON SOCKET 3X8
99	7-683-421-04	BOLT, HEXAGON SOCKET 4X12
100	7-684-023-04	N 3, TYPE 2
101	7-685-647-29	SCREW +BVTP 3X10 TYPE2 SLIT
102	7-685-649-29	SCREW +BVTP 3X14 TYPE2 SLIT
103	7-686-530-01	SCREW, TOTSU PSW 3X12
104	7-688-001-11	W 2, MIDDLE
105	9-911-838-XX	RUBBER, CUSHION
106	9-911-863-XX	SHEET (A)
107	X-4852-903-0	LEG ASSY
108	X-4870-208-0	KNOB ASSY
109	X-4870-209-0	KNOB ASSY, F
110	♠;X-4879-901-0	HEAT SINK (A) ASSY
111	♠;X-4879-903-0	HEAT SINK (B) ASSY

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
141	3-701-616-00	BAG, POLYETHYLENE
142	3-701-630-00	BAG, POLYETHYLENE
143	3-783-771-11	MANUAL, INSTRUCTION
144	3-795-324-11	MANUAL, TECHNICAL
145	4-852-120-00	BAG, POLYETHYLENE
146	4-879-940-01	LABEL, INDIVIDUAL CARTON
147	4-879-941-00	INDIVIDUAL CARTON
148	4-879-942-00	CUSHION, LOWER
149	4-879-943-00	CUSHION, FRONT
150	4-879-944-00	CUSHION, REAR
151	7-721-140-60	L WRENCH (3.0)

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501	1-507-567-00	PIN JACK 1P			
502	♠;1-508-809-00	BASE POST (14MM) 2P			
503	1-535-108-00	GT PIN			
504	♠;1-535-115-00	TERMINAL			
505	♠;1-535-116-00	TERMINAL			
506	♠;1-535-121-00	TERMINAL			
507	♠;1-535-364-00	PIN, RAPPING			
508	1-536-694-11	TERMINAL			
509	1-536-694-21	TERMINAL			
510	⚠.1-555-795-00	(AEP)...CORD, POWER			
510	⚠.1-556-035-00	(UK)....CORD, POWER			
511	♠;1-560-076-00	PIN, CONNECTOR			
512	♠;1-602-608-00	PC BOARD, INVERTOR			
513	♠;1-602-609-00	PC BOARD, REGULATOR			
514	♠;1-602-610-00	PC BOARD, PLPS SUB			
515	♠;1-602-614-00	PC BOARD, A-B SW			
516	♠;1-606-417-11	PC BOARD, POWER (L)			
517	♠;1-606-417-21	PC BOARD, POWER (R)			
518	♠;1-606-419-00	PC BOARD, POWER			
519	♠;1-606-420-11	PC BOARD, PRE AMP			
520	♠;1-606-421-00	PC BOARD, CONTROL			
521	♠;1-606-422-00	PC BOARD, AC LINE			
522	♠;1-606-423-00	PC BOARD, INPUT JACK			
523	♠;1-606-424-00	PC BOARD, AMP (INDICATOR)			
524	♠;1-606-425-00	PC BOARD, OUTPUT			
525	♠;A-4358-099-A	MOUNTED PCB, PRE AMPLIFIER			
526	♠;A-4375-156-A	MOUNTED PCB, CONTROL			
527	A-4388-246-A	AUDIO MODULE ASSY			
528	♠;A-4388-290-A	MOUNTED PCB, AMPLIFIER (L)			
529	♠;A-4388-292-A	MOUNTED PCB, AMPLIFIER (R)			
530	♠;A-4394-233-A	MOUNTED PCB, INVERTOR			
531	♠;A-4394-264-A	MOUNTED PCB, REGULATOR			
C002	⚠.1-125-246-00	CAP, ELECT 22000MF			
C003	⚠.1-125-246-00	CAP, ELECT 22000MF			
C004	⚠.1-125-256-00	CAP, ELECT 2200MF			
C101	1-107-300-00	MICA	100PF	5%	100V
C102	1-107-298-00	MICA	82PF	5%	100V
C104	1-131-520-00	TANTALUM	22MF	20%	16V
C105	1-131-520-00	TANTALUM	22MF	20%	16V
C107	1-130-206-00	FILM	0.016MF	2%	630V
C108	1-107-279-00	MICA	10PF	0.5PF	100V
C201	1-123-829-00	ELECT	2.2MF	20%	50V
C251	1-123-829-00	ELECT	2.2MF	20%	50V
C302	1-123-624-00	ELECT	470MF	20%	120V

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♠ " are not stocked since thev are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C303	1-123-624-00	ELECT	470MF	20%	120V
C304	1-131-520-00	TANTALUM	22MF	20%	16V
C306	1-123-624-00	ELECT	470MF	20%	120V
C307	1-123-624-00	ELECT	470MF	20%	120V
C308	1-131-520-00	TANTALUM	22MF	20%	16V
C309	1-123-624-00	ELECT	470MF	20%	120V
C310	1-123-624-00	ELECT	470MF	20%	120V
C311	1-123-624-00	ELECT	470MF	20%	120V
C312	1-123-624-00	ELECT	470MF	20%	120V
C601	⚠1-130-342-00	FILM	0.47MF	20%	300V
C602	⚠1-161-734-00	CERAMIC	0.0022MF	20%	400V
C603	⚠1-161-734-00	CERAMIC	0.0022MF	20%	400V
C604	⚠1-161-734-00	CERAMIC	0.0022MF	20%	400V
C605	⚠1-161-734-00	CERAMIC	0.0022MF	20%	400V
C701	⚠1-161-736-00	CERAMIC	470PF	20%	400V
C702	⚠1-161-736-00	CERAMIC	470PF	20%	400V
C703	⚠1-130-141-00	MYLAR	0.01MF	20%	630V
C704	⚠1-161-736-00	CERAMIC	470PF	20%	400V
C705	⚠1-161-736-00	CERAMIC	470PF	20%	400V
C706	⚠1-125-257-00	ELECT(BLOCK)	47MF	20%	400V
C707	⚠1-108-595-00	MYLAR	0.047MF	5%	50V
C708	⚠1-108-599-00	MYLAR	0.068MF	5%	50V
C709	⚠1-130-357-11	FILM	1.0MF	10%	250V (AEP)
C710	⚠1-130-466-11	FILM	0.68MF	10%	250V (UK)
C711-714	⚠1-106-383-00	MYLAR	0.047MF	5%	200V
C804	1-130-305-00	FILM	0.022MF	5%	100V
C805	1-123-623-00	ELECT	330MF	20%	120V
C810	1-130-305-00	FILM	0.022MF	5%	100V
C811	1-123-623-00	ELECT	330MF	20%	120V
C819	⚠1-123-497-00	ELECT	470MF	20%	25V
C820	⚠1-123-497-00	ELECT	470MF	20%	25V
C821	⚠1-123-497-00	ELECT	470MF	20%	25V
C822	⚠1-123-497-00	ELECT	470MF	20%	25V
C901	⚠1-123-623-00	ELECT	330MF	20%	120V
C902	⚠1-123-623-00	ELECT	330MF	20%	120V
C903	⚠1-123-623-00	ELECT	330MF	20%	120V
C904	⚠1-123-623-00	ELECT	330MF	20%	120V
CB601	⚠1-532-546-00	BREAKER, CIRCUIT			
D101	8-719-936-06	DIODE EQA01-06R			
D102	8-719-936-06	DIODE EQA01-06R			
D103	8-719-931-20	DIODE EQB01-20			
D104	8-719-910-12	DIODE HZ11A2L			
D105	8-719-910-40	DIODE MV-104V			
D106	8-719-201-11	DIODE 10YG1.1			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D107	8-719-201-11	DIODE 10YG1.1
D108	8-719-210-35	DIODE 10YG3.5
D201	8-719-920-30	DIODE MV-203V
D202	8-719-815-55	DIODE 1S1555
D203	8-719-815-55	DIODE 1S1555
D251	8-719-920-30	DIODE MV-203V
D252	8-719-815-55	DIODE 1S1555
D253	8-719-815-55	DIODE 1S1555
D301	8-719-201-11	DIODE 10YG1.1
D302	8-719-999-64	DIODE EQA01-06T2
D303	8-719-201-11	DIODE 10YG1.1
D304	8-719-900-93	DIODE V09C
D305	8-719-201-11	DIODE 10YG1.1
D306	8-719-999-64	DIODE EQA01-06T2
D307	8-719-201-11	DIODE 10YG1.1
D308	8-719-900-93	DIODE V09C
D402	8-719-910-12	DIODE HZ11A2L
D403	8-719-300-11	DIODE SV04S
D404	8-719-300-11	DIODE SV04S
D405	8-719-300-11	DIODE SV04S
D407	8-719-910-68	DIODE HZ6C2L
D408	8-719-200-02	DIODE 10E-2
D409	8-719-200-02	DIODE 10E-2
D410	8-719-143-07	DIODE RD4.3E-B
D411	8-719-143-07	DIODE RD4.3E-B
D412	8-719-815-55	DIODE 1S1555
D413	8-719-815-55	DIODE 1S1555
D414	8-719-422-21	DIODE 1T22AM
D415	8-719-815-55	DIODE 1S1555
D416	8-719-815-55	DIODE 1S1555
D417	8-719-422-21	DIODE 1T22AM
D418	8-719-815-55	DIODE 1S1555
D419	8-719-815-55	DIODE 1S1555
D452	8-719-910-12	DIODE HZ11A2L
D453	8-719-300-11	DIODE SV04S
D454	8-719-300-11	DIODE SV04S
D455	8-719-300-11	DIODE SV04S
D457	8-719-910-68	DIODE HZ6C2L
D458	8-719-200-02	DIODE 10E-2
D459	8-719-200-02	DIODE 10E-2
D460	8-719-143-07	DIODE RD4.3E-B
D461	8-719-143-07	DIODE RD4.3E-B
D462	8-719-815-55	DIODE 1S1555
D463	8-719-815-55	DIODE 1S1555
D464	8-719-422-21	DIODE 1T22AM

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CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

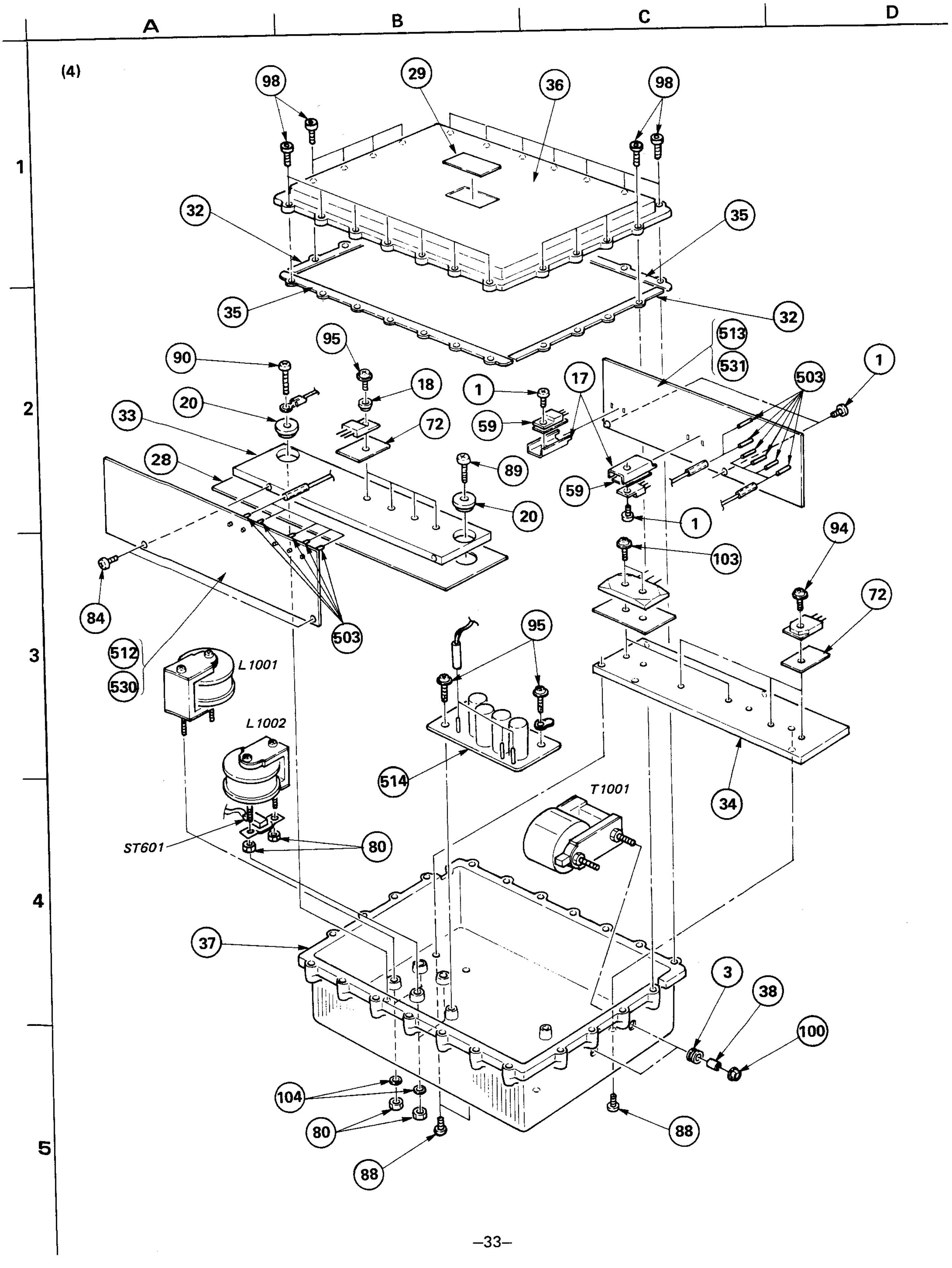
COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

(4)


A
B
C
D
L1001
L1002
T1001
ST601

GENERAL SECTION

No.	Part No.	Description
1	2-259-121-00	SCREW, TR
2	2-259-121-11	SCREW, TR
3	3-103-893-11	BUSHING, RUBBER
4	3-534-276-11	HOLDER, LAMP
5	♠;3-567-737-00	HEAT SINK
6	♠;3-641-284-00	WASHER, BOTTOM PLATE
7	3-701-510-00	SET SCREW, DOUBLE POINT 4X4
8	3-701-511-00	SET SCREW, DOUBLE POINT 4X6
9	3-701-690-00	(UK)....LABEL (MADE IN JAPAN)
10	3-703-043-00	(UK)....LABEL, CAUTION, MAIN
11	3-831-441-XX	FELT, PANEL
12	3-831-441-XX	SHEET, LIGHT INTERCEPTION
13	♠;4-304-464-00	HEAT SINK, S.P.M
14	♠;4-835-639-00	PLATE, GROUND
15	4-849-786-00	STOPPER, CORD
16	4-852-925-00	LENS, POWER LAMP
17	♠;4-854-790-00	HEAT SINK
18	4-857-425-00	BUSHING, 03P INSULATING
19	4-861-045-00	LABEL, CAUTION
20	4-861-050-00	SPACER, INSULATING
21	♠;4-870-203-00	BRACKET (A), POWER SWITCH
22	4-870-204-00	ORNAMENT, SWITCH (B)
23	♠;4-870-206-00	SUPPORT, PC BOARD
24	4-870-210-00	RING, PANEL RETAINER
25	4-870-214-00	ORNAMENTAL, JACK
26	4-870-214-11	ORNAMENTAL, JACK
27	4-870-217-00	WASHER, KNOB
28	4-870-218-00	SHEET, INSULATING (A)
29	♠;4-870-219-00	LABEL, SWITCH BOX
30	♠;4-870-220-00	BRACKET (B), POWER SWITCH
31	♠;4-870-221-00	SHAFT, FITTING, POWER SWITCH
32	4-870-230-00	PLATE, SHIELD (B)
33	♠;4-870-234-00	HEAT SINK (A)
34	♠;4-870-235-00	HEAT SINK (B)
35	4-870-244-00	PLATE, SHIELD (A)
36	♠;4-870-245-00	LID, SWITCH
37	♠;4-870-246-00	BOX, SWITCH
38	4-870-253-00	SPACER, TRANSFORMER
39	♠;4-870-273-00	HEAT SINK (E)
40	4-879-136-00	PANEL, SIDE
41	♠;4-879-901-00	PLATE (A), GROUND
42	♠;4-879-902-00	PLATE (B), GROUND
43	♠;4-879-903-00	PLATE (C), GROUND
44	♠;4-879-904-00	PLATE (D), GROUND
45	♠;4-879-905-00	ANGLE (A), FITTING, PANEL

GENERAL SECTION

No.	Part No.	Description
46	♠;4-879-906-00	ANGLE, PANEL, REAR
47	♠;4-879-907-00	HOLDER (B), C
48	♠;4-879-908-00	SUPPORT (B), PC BOARD
49	♠;4-879-909-00	STAY, HEAT SINK
50	4-879-910-00	GLASS, PLATE, DISPLAY
51	4-879-911-00	PLATE (A), LIGHT INTERCEPTION
52	♠;4-879-913-00	BLOCK (B), HEAT SINK
53	♠;4-879-914-00	PLATE (B), LIGHT INTERCEPTION
54	♠;4-879-915-00	PLATE (C), LIGHT INTERCEPTION
55	♠;4-879-916-00	RETAINER, PIN JACK
56	♠;4-879-917-00	STAY, PC BOARD
57	♠;4-879-918-00	PLATE (D), LIGHT INTERCEPTION
58	♠;4-879-919-00	ANGLE, GUARD
59	♠;4-879-920-00	SPACER, HEAT SINK
60	♠;4-879-922-00	HOLDER (A), C
61	♠;4-879-923-00	BLOCK (A), HEAT SINK
62	♠;4-879-924-00	CASE, INDICATION, SAFETY
63	♠;4-879-925-00	WASHER
64	♠;4-879-926-00	SUPPORT, HEAT SINK
65	♠;4-879-927-00	COVER, REAR
66	4-879-928-00	PLATE (RIGHT), SIDE
67	4-879-929-00	PLATE (LEFT), SIDE
68	4-879-930-11	PANEL, REAR
69	4-879-932-00	PANEL, FRONT
70	♠;4-879-933-00	PLATE (B), BOTTOM
71	4-879-934-00	PANEL, UPPER
72	4-879-937-00	SHEET, MICA
73	♠;4-879-945-00	SHEET (B), MICA
74	4-879-947-00	(AEP)......LABEL, MODEL NUMBER (AEP)
75	4-879-948-00	(UK).......LABEL, MODEL NUMBER (UK)
76	♠;4-879-949-00	ROD (A)
77	♠;4-879-951-00	LABEL, FUSE
78	7-621-284-00	SCREW +P 2.6X4
79	7-621-773-95	SCREW +B 2.6X6
80	7-622-205-05	N 2, TYPE 2
81	7-623-108-21	W 3, LARGE
82	7-623-212-22	SW 5, TYPE 2
83	7-623-422-07	LW 3, TYPE B
84	7-628-254-10	SCREW +PS 2.6X6
85	7-682-159-09	SCREW +P 4X5
86	7-682-174-09	SCREW +P 5X8
87	7-682-547-09	SCREW +B 3X6
88	7-682-548-09	SCREW +B 3X8
89	7-682-550-09	SCREW +B 3X12
90	7-682-551-09	SCREW +B 3X14

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CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

GENERAL SECTION

No.	Part No.	Description
91	7-682-554-09	SCREW +B 3X25
92	7-682-646-09	SCREW +PS 3X5
93	7-682-662-09	SCREW +PS 4X10
94	7-682-949-01	SCREW +PSW 3X10
95	7-682-949-09	SCREW +PSW 3X10
96	7-682-951-09	SCREW +PSW 3X14
97	7-683-402-04	BOLT, HEXAGON SOCKET 3X5
98	7-683-404-04	BOLT, HEXAGON SOCKET 3X8
99	7-683-421-04	BOLT, HEXAGON SOCKET 4X12
100	7-684-023-04	N 3, TYPE 2
101	7-685-647-29	SCREW +BVTP 3X10 TYPE2 SLIT
102	7-685-649-29	SCREW +BVTP 3X14 TYPE2 SLIT
103	7-686-530-01	SCREW, TOTSU PSW 3X12
104	7-688-001-11	W 2, MIDDLE
105	9-911-838-XX	RUBBER, CUSHION
106	9-911-863-XX	SHEET (A)
107	X-4852-903-0	LEG ASSY
108	X-4870-208-0	KNOB ASSY
109	X-4870-209-0	KNOB ASSY, F
110	♠;X-4879-901-0	HEAT SINK (A) ASSY
111	♠;X-4879-903-0	HEAT SINK (B) ASSY

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
141	3-701-616-00	BAG, POLYETHYLENE
142	3-701-630-00	BAG, POLYETHYLENE
143	3-783-771-11	MANUAL, INSTRUCTION
144	3-795-324-11	MANUAL, TECHNICAL
145	4-852-120-00	BAG, POLYETHYLENE
146	4-879-940-01	LABEL, INDIVIDUAL CARTON
147	4-879-941-00	INDIVIDUAL CARTON
148	4-879-942-00	CUSHION, LOWER
149	4-879-943-00	CUSHION, FRONT
150	4-879-944-00	CUSHION, REAR
151	7-721-140-60	L WRENCH (3.0)

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501	1-507-567-00	PIN JACK 1P			
502	♠;1-508-809-00	BASE POST (14MM) 2P			
503	1-535-108-00	GT PIN			
504	♠;1-535-115-00	TERMINAL			
505	♠;1-535-116-00	TERMINAL			
506	♠;1-535-121-00	TERMINAL			
507	♠;1-535-364-00	PIN, RAPPING			
508	1-536-694-11	TERMINAL			
509	1-536-694-21	TERMINAL			
510	⚠.1-555-795-00	(AEP)...CORD, POWER			
510	⚠.1-556-035-00	(UK)....CORD, POWER			
511	♠;1-560-076-00	PIN, CONNECTOR			
512	♠;1-602-608-00	PC BOARD, INVERTOR			
513	♠;1-602-609-00	PC BOARD, REGULATOR			
514	♠;1-602-610-00	PC BOARD, PLPS SUB			
515	♠;1-602-614-00	PC BOARD, A-B SW			
516	♠;1-606-417-11	PC BOARD, POWER (L)			
517	♠;1-606-417-21	PC BOARD, POWER (R)			
518	♠;1-606-419-00	PC BOARD, POWER			
519	♠;1-606-420-11	PC BOARD, PRE AMP			
520	♠;1-606-421-00	PC BOARD, CONTROL			
521	♠;1-606-422-00	PC BOARD, AC LINE			
522	♠;1-606-423-00	PC BOARD, INPUT JACK			
523	♠;1-606-424-00	PC BOARD, AMP (INDICATOR)			
524	♠;1-606-425-00	PC BOARD, OUTPUT			
525	♠;A-4358-099-A	MOUNTED PCB, PRE AMPLIFIER			
526	♠;A-4375-156-A	MOUNTED PCB, CONTROL			
527	A-4388-246-A	AUDIO MODULE ASSY			
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529	♠;A-4388-292-A	MOUNTED PCB, AMPLIFIER (R)			
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C003	⚠.1-125-246-00	CAP, ELECT 22000MF			
C004	⚠.1-125-256-00	CAP, ELECT 2200MF			
C101	1-107-300-00	MICA	100PF	5%	100V
C102	1-107-298-00	MICA	82PF	5%	100V
C104	1-131-520-00	TANTALUM	22MF	20%	16V
C105	1-131-520-00	TANTALUM	22MF	20%	16V
C107	1-130-206-00	FILM	0.016MF	2%	630V
C108	1-107-279-00	MICA	10PF	0.5PF	100V
C201	1-123-829-00	ELECT	2.2MF	20%	50V
C251	1-123-829-00	ELECT	2.2MF	20%	50V
C302	1-123-624-00	ELECT	470MF	20%	120V

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C307	1-123-624-00	ELECT	470MF	20%	120V
C308	1-131-520-00	TANTALUM	22MF	20%	16V
C309	1-123-624-00	ELECT	470MF	20%	120V
C310	1-123-624-00	ELECT	470MF	20%	120V
C311	1-123-624-00	ELECT	470MF	20%	120V
C312	1-123-624-00	ELECT	470MF	20%	120V
C601	⚠.1-130-342-00	FILM	0.47MF	20%	300V
C602	⚠.1-161-734-00	CERAMIC	0.0022MF	20%	400V
C603	⚠.1-161-734-00	CERAMIC	0.0022MF	20%	400V
C604	⚠.1-161-734-00	CERAMIC	0.0022MF	20%	400V
C605	⚠.1-161-734-00	CERAMIC	0.0022MF	20%	400V
C701	⚠.1-161-736-00	CERAMIC	470PF	20%	400V
C702	⚠.1-161-736-00	CERAMIC	470PF	20%	400V
C703	⚠.1-130-141-00	MYLAR	0.01MF	20%	630V
C704	⚠.1-161-736-00	CERAMIC	470PF	20%	400V
C705	⚠.1-161-736-00	CERAMIC	470PF	20%	400V
C706	⚠.1-125-257-00	ELECT(BLOCK)	47MF	20%	400V
C707	⚠.1-108-595-00	MYLAR	0.047MF	5%	50V
C708	⚠.1-108-599-00	MYLAR	0.068MF	5%	50V
C709	⚠.1-130-357-11	FILM	1.0MF	10%	250V (AEP)
C710	⚠.1-130-466-11	FILM	0.68MF	10%	250V (UK)
C711-714	⚠.1-106-383-00	MYLAR	0.047MF	5%	200V
C804	1-130-305-00	FILM	0.022MF	5%	100V
C805	1-123-623-00	ELECT	330MF	20%	120V
C810	1-130-305-00	FILM	0.022MF	5%	100V
C811	1-123-623-00	ELECT	330MF	20%	120V
C819	⚠.1-123-497-00	ELECT	470MF	20%	25V
C820	⚠.1-123-497-00	ELECT	470MF	20%	25V
C821	⚠.1-123-497-00	ELECT	470MF	20%	25V
C822	⚠.1-123-497-00	ELECT	470MF	20%	25V
C901	⚠.1-123-623-00	ELECT	330MF	20%	120V
C902	⚠.1-123-623-00	ELECT	330MF	20%	120V
C903	⚠.1-123-623-00	ELECT	330MF	20%	120V
C904	⚠.1-123-623-00	ELECT	330MF	20%	120V
CB601	⚠.1-532-546-00	BREAKER, CIRCUIT			
D101	8-719-936-06	DIODE EQA01-06R			
D102	8-719-936-06	DIODE EQA01-06R			
D103	8-719-931-20	DIODE EQB01-20			
D104	8-719-910-12	DIODE HZ11A2L			
D105	8-719-910-40	DIODE MV-104V			
D106	8-719-201-11	DIODE 10YG1.1			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D107	8-719-201-11	DIODE 10YG1.1
D108	8-719-210-35	DIODE 10YG3.5
D201	8-719-920-30	DIODE MV-203V
D202	8-719-815-55	DIODE 1S1555
D203	8-719-815-55	DIODE 1S1555
D251	8-719-920-30	DIODE MV-203V
D252	8-719-815-55	DIODE 1S1555
D253	8-719-815-55	DIODE 1S1555
D301	8-719-201-11	DIODE 10YG1.1
D302	8-719-999-64	DIODE EQA01-06T2
D303	8-719-201-11	DIODE 10YG1.1
D304	8-719-900-93	DIODE V09C
D305	8-719-201-11	DIODE 10YG1.1
D306	8-719-999-64	DIODE EQA01-06T2
D307	8-719-201-11	DIODE 10YG1.1
D308	8-719-900-93	DIODE V09C
D402	8-719-910-12	DIODE HZ11A2L
D403	8-719-300-11	DIODE SV04S
D404	8-719-300-11	DIODE SV04S
D405	8-719-300-11	DIODE SV04S
D407	8-719-910-68	DIODE HZ6C2L
D408	8-719-200-02	DIODE 10E-2
D409	8-719-200-02	DIODE 10E-2
D410	8-719-143-07	DIODE RD4.3E-B
D411	8-719-143-07	DIODE RD4.3E-B
D412	8-719-815-55	DIODE 1S1555
D413	8-719-815-55	DIODE 1S1555
D414	8-719-422-21	DIODE 1T22AM
D415	8-719-815-55	DIODE 1S1555
D416	8-719-815-55	DIODE 1S1555
D417	8-719-422-21	DIODE 1T22AM
D418	8-719-815-55	DIODE 1S1555
D419	8-719-815-55	DIODE 1S1555
D452	8-719-910-12	DIODE HZ11A2L
D453	8-719-300-11	DIODE SV04S
D454	8-719-300-11	DIODE SV04S
D455	8-719-300-11	DIODE SV04S
D457	8-719-910-68	DIODE HZ6C2L
D458	8-719-200-02	DIODE 10E-2
D459	8-719-200-02	DIODE 10E-2
D460	8-719-143-07	DIODE RD4.3E-B
D461	8-719-143-07	DIODE RD4.3E-B
D462	8-719-815-55	DIODE 1S1555
D463	8-719-815-55	DIODE 1S1555
D464	8-719-422-21	DIODE 1T22AM

NOTE:

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- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in µF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:µF, PF:µµF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : µH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : µ, for example:
UA···: µA···, UPA···: µPA···, UPC···: µPC, UPD···: µPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D465	8-719-815-55	DIODE 1S1555
D466	8-719-815-55	DIODE 1S1555
D467	8-719-422-21	DIODE 1T22AM
D468	8-719-815-55	DIODE 1S1555
D469	8-719-815-55	DIODE 1S1555
D501	8-719-815-55	DIODE 1S1555
D502	8-719-815-55	DIODE 1S1555
D506	8-719-815-55	DIODE 1S1555
D507	8-719-815-55	DIODE 1S1555
D508	8-719-815-55	DIODE 1S1555
D509	8-719-815-55	DIODE 1S1555
D510	8-719-815-55	DIODE 1S1555
D511	8-719-815-55	DIODE 1S1555
D512	8-719-815-55	DIODE 1S1555
D513	8-719-815-55	DIODE 1S1555
D514	8-719-815-55	DIODE 1S1555
D515	8-719-815-55	DIODE 1S1555
D516	8-719-936-05	DIODE EQA01-05R
D517	8-719-815-55	DIODE 1S1555
D518	8-719-999-52	DIODE EQA01-05S2
D519	8-719-815-55	DIODE 1S1555
D520	8-719-815-55	DIODE 1S1555
D521	8-719-936-05	DIODE EQA01-05R
D522	8-719-936-05	DIODE EQA01-05R
D523	8-719-910-78	DIODE HZ7C2L
D601 ⚠	8-719-201-04	DIODE PB104L
D602	8-719-902-01	DIODE SPI201-AA
D603	8-719-305-15	DIODE GH3F
D701	8-719-815-55	DIODE 1S1555
D702	8-719-815-55	DIODE 1S1555
D801	8-719-300-33	DIODE RU-3AM
D802	8-719-300-33	DIODE RU-3AM
D803	8-719-913-02	DIODE HZ30-2L
D806	8-719-913-02	DIODE HZ30-2L
D807	8-719-201-11	DIODE 10YG1.1
D808	8-719-201-11	DIODE 10YG1.1
D809	8-719-300-33	DIODE RU-3AM
D810	8-719-230-24	DIODE 30DL4
D811	8-719-230-24	DIODE 30DL4
D812	8-719-230-24	DIODE 30DL4
D813	8-719-230-24	DIODE 30DL4
D814	8-719-910-41	DIODE HZ24-1L
D815	8-719-910-41	DIODE HZ24-1L
D816	8-719-910-68	DIODE HZ6C2L
D817	8-719-910-68	DIODE HZ6C2L

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D818	8-719-212-65	DIODE 10YG2.6
D819	8-719-212-65	DIODE 10YG2.6
D901	8-719-815-55	DIODE 1S1555
D951	8-719-815-55	DIODE 1S1555
F602 ⚠	1-532-496-00	FUSE, THERMO
L701 ⚠	1-421-349-00	COIL, CHOLK
L702 ⚠	1-421-370-00	COIL, CHOKE
L703 ⚠	1-421-370-00	COIL, CHOKE
L803	1-421-370-00	COIL, CHOKE
L805	1-421-370-00	COIL, CHOKE
L809 ⚠	1-407-488-31	MICRO INDUCTOR 470UH
L810 ⚠	1-407-488-31	MICRO INDUCTOR 470UH
L811 ⚠	1-407-488-31	MICRO INDUCTOR 470UH
L812 ⚠	1-407-488-31	MICRO INDUCTOR 470UH
L901 ⚠	1-421-370-00	COIL, CHOKE
L902 ⚠	1-421-370-00	COIL, CHOKE
L903	1-459-119-00	COIL, DUST CORE(ARC)
L904	1-459-119-00	COIL, DUST CORE(ARC)
L1001	1-421-347-00	COIL, CHOLK
L1002	1-421-347-00	COIL, CHOLK
PL1	1-518-313-00	LAMP, PILOT
PL2	1-518-259-00	LAMP, PILOT
PL3	1-518-259-00	LAMP, PILOT
PL4	1-518-259-00	LAMP, PILOT
PL5	1-518-259-00	LAMP, PILOT
PL6	1-518-259-00	LAMP, PILOT
PL7	1-518-259-00	LAMP, PILOT
PL8	1-518-259-00	LAMP, PILOT
PL9	1-518-259-00	LAMP, PILOT
PL10	1-518-259-00	LAMP, PILOT
PL11	1-518-259-00	LAMP, PILOT
PTH401	1-800-427-00	POSISTOR
PTH451	1-800-427-00	POSISTOR
PTH452	1-806-064-11	POSISTOR
Q101	8-729-113-82	TRANSISTOR 2SA1138
Q102	8-729-951-18	TRANSISTOR 2N5118
Q103	8-729-113-82	TRANSISTOR 2SA1138
Q104	8-729-113-82	TRANSISTOR 2SA1138
Q105	8-729-113-82	TRANSISTOR 2SA1138
Q106	8-729-113-82	TRANSISTOR 2SA1138
Q107	8-729-167-62	TRANSISTOR 2SC2676
Q108	8-729-167-62	TRANSISTOR 2SC2676
Q109	8-765-640-10	TRANSISTOR 2SK244
Q110	8-729-366-81	TRANSISTOR 2SD668
Q111	8-729-167-62	TRANSISTOR 2SC2676
Q112	8-729-612-77	TRANSISTOR 2SA1027R

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CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q113	8-729-364-81	TRANSISTOR 2SB648
Q114	8-729-366-81	TRANSISTOR 2SD668
Q115	8-729-366-81	TRANSISTOR 2SD668
Q201	8-729-168-22	TRANSISTOR 2SC2682
Q202	8-729-114-22	TRANSISTOR 2SA1142
Q203	8-729-114-22	TRANSISTOR 2SA1142
Q251	8-729-168-22	TRANSISTOR 2SC2682
Q252	8-729-114-22	TRANSISTOR 2SA1142
Q253	8-729-114-22	TRANSISTOR 2SA1142
Q301	8-729-113-82	TRANSISTOR 2SA1138
Q302	8-729-113-82	TRANSISTOR 2SA1138
Q303	8-729-167-62	TRANSISTOR 2SC2676
Q304	8-729-167-62	TRANSISTOR 2SC2676
Q305	8-729-376-02	TRANSISTOR 2SD760
Q306	8-729-167-62	TRANSISTOR 2SC2676
Q307	8-729-167-62	TRANSISTOR 2SC2676
Q308	8-729-113-82	TRANSISTOR 2SA1138
Q309	8-729-113-82	TRANSISTOR 2SA1138
Q310	8-729-372-02	TRANSISTOR 2SB720
Q401	8-729-168-22	TRANSISTOR 2SC2682
Q402	8-729-114-22	TRANSISTOR 2SA1142
Q403	8-729-114-22	TRANSISTOR 2SA1142
Q404	8-729-612-77	TRANSISTOR 2SA1027R
Q405	8-729-663-47	TRANSISTOR 2SC1364
Q406	8-729-168-22	TRANSISTOR 2SC2682
Q407	8-729-663-47	TRANSISTOR 2SC1364
Q408	8-729-612-77	TRANSISTOR 2SA1027R
Q409	8-729-663-47	TRANSISTOR 2SC1364
Q410	8-729-612-77	TRANSISTOR 2SA1027R
Q411	8-729-168-22	TRANSISTOR 2SC2682
Q412	8-729-114-22	TRANSISTOR 2SA1142
Q413	8-729-107-53	TRANSISTOR 2SC2275A
Q414	8-729-190-53	TRANSISTOR 2SA985A
Q415	8-729-383-73	TRANSISTOR 2SC2837-0
Q416	8-729-318-63	TRANSISTOR 2SA1186-0
Q417	8-729-383-73	TRANSISTOR 2SC2837-0
Q418	8-729-318-63	TRANSISTOR 2SA1186-0
Q419	8-729-383-73	TRANSISTOR 2SC2837-0
Q420	8-729-318-63	TRANSISTOR 2SA1186-0
Q446	8-729-318-63	TRANSISTOR 2SA1186-0
Q448	8-729-318-63	TRANSISTOR 2SA1186-0
Q451	8-729-168-22	TRANSISTOR 2SC2682
Q452	8-729-114-22	TRANSISTOR 2SA1142
Q453	8-729-114-22	TRANSISTOR 2SA1142
Q454	8-729-612-77	TRANSISTOR 2SA1027R

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q455	8-729-663-47	TRANSISTOR 2SC1364
Q456	8-729-168-22	TRANSISTOR 2SC2682
Q457	8-729-663-47	TRANSISTOR 2SC1364
Q458	8-729-612-77	TRANSISTOR 2SA1027R
Q459	8-729-663-47	TRANSISTOR 2SC1364
Q460	8-729-612-77	TRANSISTOR 2SA1027R
Q461	8-729-168-22	TRANSISTOR 2SC2682
Q462	8-729-114-22	TRANSISTOR 2SA1142
Q463	8-729-107-53	TRANSISTOR 2SC2275A
Q464	8-729-190-53	TRANSISTOR 2SA985A
Q465	8-729-383-73	TRANSISTOR 2SC2837-0
Q467	8-729-383-73	TRANSISTOR 2SC2837-0
Q469	8-729-383-73	TRANSISTOR 2SC2837-0
Q470	8-729-318-63	TRANSISTOR 2SA1186-0
Q501	8-729-663-47	TRANSISTOR 2SC1364
Q502	8-729-663-47	TRANSISTOR 2SC1364
Q503	8-729-103-43	TRANSISTOR 2SB734
Q504	8-729-103-43	TRANSISTOR 2SB734
Q505	8-729-103-43	TRANSISTOR 2SB734
Q506	8-729-103-43	TRANSISTOR 2SB734
Q507	8-729-103-43	TRANSISTOR 2SB734
Q508	8-729-663-47	TRANSISTOR 2SC1364
Q509	8-729-612-77	TRANSISTOR 2SA1027R
Q510	8-729-663-47	TRANSISTOR 2SC1364
Q511	8-729-612-77	TRANSISTOR 2SA1027R
Q512	8-729-663-47	TRANSISTOR 2SC1364
Q513	8-729-103-43	TRANSISTOR 2SB734
Q514	8-729-663-47	TRANSISTOR 2SC1364
Q515	8-729-103-43	TRANSISTOR 2SB734
Q516	8-729-663-47	TRANSISTOR 2SC1364
Q517	8-729-663-47	TRANSISTOR 2SC1364
Q518	8-729-663-47	TRANSISTOR 2SC1364
Q519	8-729-663-47	TRANSISTOR 2SC1364
Q520	8-729-103-43	TRANSISTOR 2SB734
Q521	8-729-663-47	TRANSISTOR 2SC1364
Q522	8-729-663-47	TRANSISTOR 2SC1364
Q523	8-729-663-47	TRANSISTOR 2SC1364
Q524	8-729-663-47	TRANSISTOR 2SC1364
Q525	8-729-168-22	TRANSISTOR 2SC2682
Q526	8-729-663-47	TRANSISTOR 2SC1364
Q701 ⚠	8-729-612-77	TRANSISTOR 2SA1027R
Q702 ⚠	8-729-663-47	TRANSISTOR 2SC1364
Q703 ⚠	X-4870-214-1	TRANSISTOR 2SC2625
Q704 ⚠	X-4870-214-1	TRANSISTOR 2SC2625
Q705 ⚠	X-4870-214-1	TRANSISTOR 2SC2625

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CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
Q706	⚠ X-4870-214-1	TRANSISTOR 2SC2625				
Q801	8-729-377-31	TRANSISTOR 2SC2773				
Q802	8-729-308-62	TRANSISTOR 2SC1986				
Q803	8-729-304-62	TRANSISTOR 2SB646A				
Q804	8-729-300-62	TRANSISTOR 2SD666A				
Q805	8-729-113-82	TRANSISTOR 2SA1138				
Q807	8-729-316-91	TRANSISTOR 2SA1169				
Q806	8-729-113-82	TRANSISTOR 2SA1138				
Q808	8-729-377-12	TRANSISTOR 2SA771				
Q809	8-729-300-62	TRANSISTOR 2SD666A				
Q810	8-729-304-62	TRANSISTOR 2SB646A				
Q811	8-729-167-62	TRANSISTOR 2SC2676				
Q812	8-729-167-62	TRANSISTOR 2SC2676				
Q814	8-729-663-47	TRANSISTOR 2SC1364				
Q815	8-729-612-77	TRANSISTOR 2SA1027R				
R105	1-214-989-00	METAL	1.8K	1%	1/2W	
R106	1-214-992-00	METAL	47K	1%	1W	
R109	1-214-988-00	METAL	200	1%	1W	
R114	1-214-991-00	METAL	8.2K	1%	1W	
R115	1-214-991-00	METAL	8.2K	1%	1W	
R117	1-214-990-00	METAL	3.3K	1%	1W	
R118	1-214-990-00	METAL	3.3K	1%	1W	
R119	1-214-964-00	METAL	1M	1%	1/4W	
R204	⚠.1-212-970-00	FUSIBLE	33	5%	1/2W	F
R205	⚠.1-212-970-00	FUSIBLE	33	5%	1/2W	F
R206	1-214-828-00	METAL	33	1%	1/2W	
R207	1-214-828-00	METAL	33	1%	1/2W	
R254	⚠.1-212-970-00	FUSIBLE	33	5%	1/2W	F
R255	⚠.1-212-970-00	FUSIBLE	33	5%	1/2W	F
R256	1-214-828-00	METAL	33	1%	1/2W	
R257	1-214-828-00	METAL	33	1%	1/2W	
R301	1-214-904-00	METAL	43K	1%	1/2W	
R302	1-214-879-00	METAL	4.3K	1%	1/2W	
R308	1-214-904-00	METAL	43K	1%	1/2W	
R309	1-214-879-00	METAL	4.3K	1%	1/2W	
R315	⚠.1-247-078-00	CARBON	3.9	5%	1/4W	F
R316	⚠.1-247-078-00	CARBON	3.9	5%	1/4W	F
R322	1-214-954-00	METAL	390K	1%	1/4W	
R323	1-214-954-00	METAL	390K	1%	1/4W	
R326	⚠.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R327	⚠.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R328	⚠.1-212-979-00	FUSIBLE	75	5%	1/2W	F
R329	⚠.1-212-979-00	FUSIBLE	75	5%	1/2W	F
R330	⚠.1-212-986-00	FUSIBLE	150	5%	1/2W	F
R331	⚠.1-212-986-00	FUSIBLE	150	5%	1/2W	F

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R372	1-214-954-00	METAL	390K	1%	1/4W	
R373	1-214-954-00	METAL	390K	1%	1/4W	
R376	⚠.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R377	⚠.1-212-990-00	FUSIBLE	220	5%	1/2W	F
R378	⚠.1-212-979-00	FUSIBLE	75	5%	1/2W	F
R379	⚠.1-212-979-00	FUSIBLE	75	5%	1/2W	F
R380	⚠.1-212-986-00	FUSIBLE	150	5%	1/2W	F
R381	⚠.1-212-986-00	FUSIBLE	150	5%	1/2W	F
R406	1-214-828-00	METAL	33	1%	1/2W	
R409	1-214-859-00	METAL	620	1%	1/2W	
R410	1-214-872-00	METAL	2.2K	1%	1/2W	
R412	1-214-872-00	METAL	2.2K	1%	1/2W	
R413	1-214-859-00	METAL	620	1%	1/2W	
R414	1-214-851-00	METAL	300	1%	1/2W	
R415	1-214-851-00	METAL	300	1%	1/2W	
R416	1-214-851-00	METAL	300	1%	1/2W	
R417	1-214-851-00	METAL	300	1%	1/2W	
R418	1-214-856-00	METAL	470	1%	1/2W	
R419	1-214-861-00	METAL	750	1%	1/2W	
R420	1-214-861-00	METAL	750	1%	1/2W	
R421	1-214-856-00	METAL	470	1%	1/2W	
R422	1-214-816-00	METAL	10	1%	1/2W	
R424	1-214-816-00	METAL	10	1%	1/2W	
R425	⚠.1-212-965-00	FUSIBLE	20	5%	1/2W	F
R426	⚠.1-212-965-00	FUSIBLE	20	5%	1/2W	F
R427	1-214-816-00	METAL	10	1%	1/2W	
R431	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R432	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R433	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R434	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R435	1-217-157-21	RES, METAL PLATE 0.33				
R436	1-217-157-21	RES, METAL PLATE 0.33				
R437	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R438	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R439	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R440	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R441	1-217-157-21	RES, METAL PLATE 0.33				
R442	1-217-157-21	RES, METAL PLATE 0.33				
R443	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R444	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R445	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R446	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R447	1-217-157-21	RES, METAL PLATE 0.33				
R448	1-217-157-21	RES, METAL PLATE 0.33				
R449	1-214-886-00	METAL	8.2K	1%	1/2W	

NOTE:

Items with no part number and no description are not stocked because they are seldom required for routine service.

Items marked " ♦ " are not stocked since thev are seldom required for routine service. Some delay should be anticipated when ordering these items.

Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R456	1-214-828-00	METAL	33	1%	1/2W	
R459	1-214-859-00	METAL	620	1%	1/2W	
R460	1-214-872-00	METAL	2.2K	1%	1/2W	
R462	1-214-872-00	METAL	2.2K	1%	1/2W	
R463	1-214-859-00	METAL	620	1%	1/2W	
R464	1-214-851-00	METAL	300	1%	1/2W	
R465	1-214-851-00	METAL	300	1%	1/2W	
R466	1-214-851-00	METAL	300	1%	1/2W	
R467	1-214-851-00	METAL	300	1%	1/2W	
R468	1-214-856-00	METAL	470	1%	1/2W	
R469	1-214-861-00	METAL	750	1%	1/2W	
R470	1-214-861-00	METAL	750	1%	1/2W	
R471	1-214-856-00	METAL	470	1%	1/2W	
R472	1-214-816-00	METAL	10	1%	1/2W	
R474	1-214-816-00	METAL	10	1%	1/2W	
R475	⚠.1-212-965-00	FUSIBLE	20	5%	1/2W	F
R476	⚠.1-212-965-00	FUSIBLE	20	5%	1/2W	F
R477	1-214-816-00	METAL	10	1%	1/2W	
R481	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R482	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R483	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R484	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R485	1-217-157-21	RES, METAL PLATE 0.33				
R486	1-217-157-21	RES, METAL PLATE 0.33				
R487	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R488	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R489	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R490	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R491	1-217-157-21	RES, METAL PLATE 0.33				
R492	1-217-157-21	RES, METAL PLATE 0.33				
R493	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R494	⚠.1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R495	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R496	⚠.1-212-966-00	FUSIBLE	22	5%	1/2W	F
R497	1-217-157-21	RES, METAL PLATE 0.33				
R498	1-217-157-21	RES, METAL PLATE 0.33				
R499	1-214-886-00	METAL	8.2K	1%	1/2W	
R538	⚠.1-206-482-11	METAL	62	5%	2W	F
R539	⚠.1-206-643-11	METAL	130	5%	2W	F
R541	⚠.1-206-643-11	METAL	130	5%	2W	F
R557	⚠.1-206-482-11	METAL	62	5%	2W	F
R601	⚠.1-206-817-00	METAL	18K	5%	5W	F
R602	⚠.1-217-609-00	WIREWOUND	15	10%	20W	
R701	⚠.1-214-164-00	METAL	22K	1%	1/4W	
R702	⚠.1-214-128-00	METAL	680	1%	1/4W	

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R703	⚠.1-214-148-00	METAL	4.7K	1%	1/4W	
R704	⚠.1-214-156-00	METAL	10K	1%	1/4W	
R705	⚠.1-244-927-00	CARBON	180K	5%	1/2W (AEP)	
R705	⚠ 1-244-928-00	CARBON	200K	5%	1/2W (UK)	
R706	⚠.1-206-467-00	METAL	15	5%	2W	F
R808	⚠.1-247-079-00	CARBON	4.7	5%	1/4W	F
R810	1-214-917-31	METAL	150K	1%	1/2W	
R811	1-214-879-00	METAL	4.3K	1%	1/2W	
R812	1-214-885-00	METAL	7.5K	1%	1/2W	
R819	⚠.1-247-079-00	CARBON	4.7	5%	1/4W	F
R822	1-214-919-31	METAL	180K	1%	1/2W	
R823	1-214-879-00	METAL	4.3K	1%	1/2W	
R824	1-214-885-00	METAL	7.5K	1%	1/2W	
R901	1-217-582-00	WIREWOUND	8.2	10%	5W	
R951	1-217-582-00	WIREWOUND	8.2	10%	5W	
R902	1-217-582-00	WIREWOUND	8.2	10%	5W	
R952	1-217-582-00	WIREWOUND	8.2	10%	5W	
RT801	1-226-828-00	RES, ADJ, METAL FILM 1K				
RT802	1-226-828-00	RES, ADJ, METAL FILM 1K				
RV201	1-224-247-XX	RES, ADJ, METAL GLAZE 100				
RV251	1-224-247-XX	RES, ADJ, METAL GLAZE 100				
RV401	1-224-660-00	RES, ADJ, METAL FILM 1K				
RV451	1-224-660-00	RES, ADJ, METAL FILM 1K				
RY601	⚠.1-515-367-00	RELAY				
RY901	1-515-356-00	RELAY				
RY951	1-515-356-00	RELAY				
S1	⚠.1-552-975-00	SWITCH, AC				
S2	1-553-923-00	SWITCH, ROTARY				
T701	⚠.1-543-100-00	CORE				
T1001	⚠.1-447-306-00	(AEP)...TRANSFORMER, CONVERTER				
T1001	⚠.1-447-239-00	(UK)....TRANSFORMER, CONVERTER				
TH401	1-800-193-00	THERMISTOR (DIRECT-HEATING DISK)				
TH451	1-800-193-00	THERMISTOR (DIRECT-HEATING DISK)				

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- Items marked " ♦ " are not stocked since thev are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTROLYTIC CAPACITORS

RATING →: Use the high voltage rated one.

CAP. (μF)	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-41[illegible]-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	–	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	–	–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00	–	–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

RATING

CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

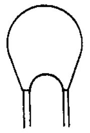
RATING →: Use the high voltage rated one.

CAP. (μF)	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

MYLAR CAPACITORS

RATING

CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.
	PART No.	PART No.	PART No.		PART No.	PART No.	PART No.		PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

RATING →: Use the high voltage rated one.

CAP. (μF)	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			

TANTALUM CAPACITORS

RATING

CAP. (μF)	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–	–	1-131-256-00	–	1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22	–	–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/4 WATT CARBON RESISTORS

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-476-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-477-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-478-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-479-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-480-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-481-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-482-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-483-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-484-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-485-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-486-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-487-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw: – P 3 x 10

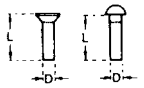
L: *Length in mm*

D: *Diameter in mm*

Type of head

Indicated slotted-head only.

Unless otherwise indicated, it means
cross-recessed head (Phillips type).



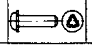
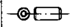
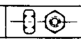
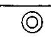
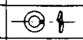
Reference Designation	Shape	Description	Remarks
		SCREWS	
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazier-head screw	

Nut, Washer, Retaining ring:

N 3

Diameter of usable screw or shaft

Reference designation

Reference Designation	Shape	Description	Remarks
		SELF-TAPPING SCREWS	
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
		SET SCREWS	
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
		NUT	
N		nut	
		WASHERS	
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
		RETAINING RINGS	
E		retaining ring	
G		grip-type retaining ring	

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